CHILDREN

THE MOST MISUNDERSTOOD BEINGS ON THE PLANET!

by

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FEATURE

I have come to believe that children may be the most misunderstood beings on our planet!

In my experience, the misunderstanding can occur throughout childhood and adolescence. The focus of this article is on early childhood, the first 1000 days, because it is a critical time to understand the child. The first 1000 days are very important as everything the child learns about their environment develops in this period, including who to trust in the present and in the future. The misunderstanding can be widespread among caregivers and educators and perhaps even for some therapists who focus solely on behavior and diagnosis. Unfortunately, this focus can then lead adults to seek strategies to control the child's behavior rather than to understand the reason for the behavior and to connect and engage with the child. Caregivers may become frustrated when the child criticizes, doesn't listen, argues with their siblings or peers, or is scared or worried about a relatively neutral object or situation. Educators may feel helpless when a child doesn't join the group, doesn't complete their activity, distracts others, hides under a table or lashes out.

In the adults' defence, behavioural and fear-based approaches, which suggested that children need to be controlled, have been recommended for decades by various "experts" (e.g., Spock, 1988). The perceived lack of control adults feel when children's behavior is misunderstood may lead to a belief that their caregiving or teaching is inadequate, which can then activate a need to control the child in order to alleviate their own insecurity and anxiety. Therefore, it is important to explain neuroscience principles of child development in order to inform and support adults in relationships with children. In this way, the usual practice of *blame* changes to *understanding* because when we are informed we are sharing the "Science of Us!" (Dahlitz, 2019).

Interestingly, whether in the media, in conversations with others, or generally in society, there appear to be so many expectations placed on children to act like mini adults, which can then lead to a misinterpretation of who they are and why they do the things they do. Consequently, adults may respond to the child's behavior because of a belief that the child is intentionally disrupting and disrespecting adults. Strategies that were recommended in the past – and still being offered in the present - focus more on controlling the child as a result of viewing the unwanted behavior as non-compliance without understanding the emotional and social reasons beneath the behavior. These strategies were recommended to alleviate adult frustration as a result of feeling helpless in changing the child's behaviour, for example, "tough love" or fear-based approaches (Stiepock, 2016). Unfortunately, these approaches are more likely to disconnect the caregiver or educator from the child rather than connect and attune empathically with the child. The question then needs to be asked, "But at what cost are tough love approaches implemented?" The child still learns, but they may learn to fear the adult, avoid the task or disconnect from their environment. Yet, the most important focus needs to be on how to help the child feel safe and increase their sense of belongingness (Allen, 2019).

This clarity is important because sometimes children are seen as having the intention to "manipulate and push the buttons" of adults. Unfortunately, this belief can direct adults to focus on the child as having behavioural problems, and behaviours, that needs to change, and/or be *diagnosed*, rather than viewing children as developing "little" people who need adults to guide, mentor, coach, teach and care.

Therefore, it is important to inform both caregivers and educators about *why* children react and *how* to assist children to calm and connect with strategies based on neuroscience principles of the developing brain (Cozolino, 2014; Willis, 2007). This creates an information framework where it is possible to shift the adult focus from the belief that the child needs to be controlled or changed to the focus on the adult taking control and *regulating* themselves. Once the adult has self-regulated, then the focus can shift to the adult assisting the child to

self-regulate, and the child is then more able to self-regulate in their own way (see Figure 1) (Vanderaa, 2019). After all, children have not been on this planet for very long and they need us to teach them how to navigate the complexities of life!

Figure 1. IMPACT OF ADULT SELF-REGULATION ON THE CHILD.

Conversely, when adults are dis-regulated, their dis-regulation is communicated during the interaction with the child, which then, in turn, can dis-regulate the child. Unfortunately, the outcome of this interaction, without adult awareness, can create the misunderstanding, as the focus is directed towards the child's behavior: the child is seen as the cause and the need to control the child is activated (see Figure 2).

Research shows us that children are highly dependent on their environment and the people to whom they attach during childhood years. Specifically, research shows that the first thousand days of a child's life are critical to the development of a sense of safety, a sense of belonging, self-esteem and for their relationships during later childhood, adolescence and the future (Siegel, 2011; 2012). Research emphasises the critical benefits of secure attachment between caregiver and child. However, when secure attachment in the home environment is not available, research also recommends a secure attachment between the child and the educator (Cozolino, 2014a; 2014b). In this regard, Cozolino (2014b) cautions that sometimes children with insecure attachment may punish educators who are kind because they have not experienced kindness from an adult in a caregiver role. It is important for educators to be aware of this likely consequence as otherwise they may believe their attempts to engage and connect with the child was not successful. In this regard, therefore, it is important for the educator to be consistent with the child and also receive support from other staff until the child's brain is able to create new neuronal networks to accept kindness from the educator. This is possible because of our natural brain plasticity and the ability for the neurons in the brain to both "wire together" and also "rewire" in response to experience and their environment.

Let us look at how the young brain develops to better appreciate and understand how children respond to their environment.

Specifically, when a baby is born there are nearly 100 billion neurons that are waiting to be connected in response to learning. The child learns about their environment and who they can trust; and, also, about how to safely crawl, walk, talk, read, ride a bike, make friends as they complete a series of important developmental milestones. The way the brain develops is that it looks at safety first before it allows development of the higher executive function processes. In this regard, the most important way to achieve safety is by feeling attached and attuned to a caregiver. If for some reason, a caregiver is unavailable, then this important role can be fulfilled by an educator in a child-

care centre, early learning centre or school environment (Cozolino, 2014a).

When we understand about how a child's brain develops, specifically about the critical stages that occur during childhood, it provides the adults with a more informed perspective. Research emphasizes the importance of the environment during these critical stages of brain development starting from conception. It is essential that caregivers and educators provide a stress free, caring and safe environment to assist the child's brain to develop in a healthy way in all forms of development - socially, emotionally and cognitively (Cozolino, 2014b; Siegel, 2011).

These are the critical areas:

Area 1: Three weeks after conception the brain's survival system and 5 senses begin to develop in utero to organise the brain and the nervous system. At birth, the child's primitive brain or safety system is fully functional and fully developed (Ackerman, 1992).

Then, after birth and during the first 2 to 6 months meaningful 'wiring' of the brain begins as a result of the events and relationships they experience each day. Importantly, young children observe their caregivers and educators to learn about emotions and ways to express their emotions, which is dependent on how the adults respond to their emotions. When an adult responds kindly and calmly, then the child has a greater opportunity to learn how to express the emotion and eventually regulate the emotion. However, when an adult responds angrily then the child learns fear and their own emotions can become dis-regulated (Cozolino, 2014a; Siegel, 2011).

During 6 to 9 months, the child's brain experiences significant growth wherein the child is able to make connections between what they see, hear, feel and taste. At this time, when adults play and interact with the child, it provides important learning opportunities for early development. Specifically, they learn that they are loved and safe which then enables them to learn more about their environment (Ackerman, 1992).

Area 2: At 3 years of age, the limbic system, or impulsive brain, begins to develop. At birth, this area of the brain is fully developed but not fully functional until 3 years of age. Critically, it needs the environment to assist with development. Importantly, this is also the stage where anxiety can develop if a child interprets their environment as unsafe. In a safe environment, this stage of brain development relies on positive relationships with caregivers, educators and the community to maximize the child's potential (Ackerman, 1992; Cozolino, 2014a; Siegel, 2011).

During 3 to 5 years of age, when children are entering learning environments such as early learning centres, kindergartens and school, their brain development is dependent on the learning they have acquired in child care centres and/or a nurturing home environment. Educators in a supportive school environment can augment the child's existing caregiving or provide a safety net if secure attachment and supportive caregiving is not available at home. As a result, this is why educators who have access to the neuroscience principles of development, are more likely to understand the child

and assist with increasing the child's sense of security during the childhood years of education (Cozolino, 2014a; Siegel, 2011).

Exploring each stage of development provides educators with a scientific rationale about the development of the brain and therefore why secure attachment is important. It is very helpful to know the roles of different areas of the brain, such as how secure attachment helps the hippocampus function and the amygdala fire less intensely which helps to increase the development of resilience. In contrast, explaining how stress and trauma shrink the hippocampus can decrease much of the child's capacity to learn, pay attention, concentrate and develop to their true potential.

Sometimes, adults may believe that if they assist the child to self-regulate, and wait until the child is calm to teach, that the child may be "getting away" with something and not learning or, worse, learning to manipulate the adult. Perhaps the adult jumps to this conclusion because they have been programmed to believe that "tough love" works best or they may be recalling an experience from their own past, which unconsciously leads the adult to react. However, I have heard many times, the relief caregivers and educators express when they discover the benefits when they firstly, self-regulate themselves, secondly, assist the child to self-regulate, then thirdly, see the child regulating him or herself. Some caregivers have commented, "This information is so important as it has helped me to see my child in a more loving and understanding way. Even though initially, I thought I was giving up control, I have actually gained more control of myself and am now more able to help my child learn and grow in all ways".

Area 3: The Pre-frontal Cortex or Smart Brain is only partially developed and functional at birth. Again, it is critical for this part of the brain to have a safe and supportive environment to fully develop, which it does not do until around 25 years of age (Ackerman, 1992).

It is very helpful to appreciate that when a child says, "I don't know" it is largely because they don't have the neural networks to understand and work it out for themselves. Supportive learning and supportive, enriched home environments facilitate learning by activating the pre-frontal cortex, or smart brain, depending upon the child's developmental level. Fear based learning creates more neuronal connections because the child learns quickly through fear, but these neurons and other connections die off as quickly as they are made. In contrast, supportive environments create new brain cells and learning is retained (Cozolino, 2014a; Siegel, 2011).

Figure 2. IMPACT OF ADULT DYSREGULATION ON THE CHILD.

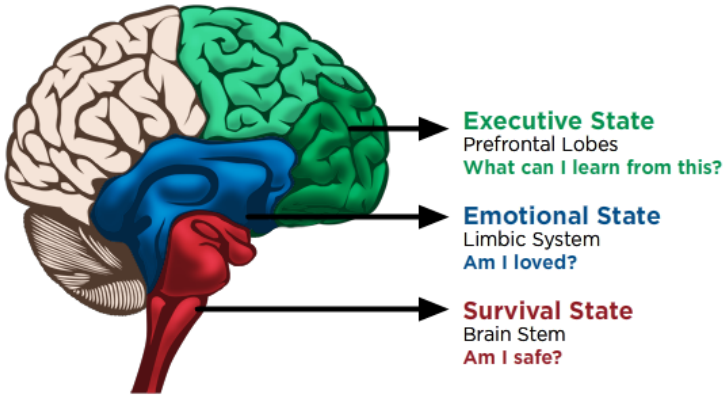
Neuroscience Principles

It is important to understand neuroscience principles of child development because this knowledge informs adults about the part of the brain that is being activated as the child learns (e.g. "Smart Brain" activation in the limbic system and pre-frontal cortex) or when their learning is being redirected (e.g. "Survival Brain" activation in the limbic system and primitive brain) (Cozolino, 2014a).

It is very important to keep in mind that the child's brain is still developing and not at an adult stage. It won't be fully developed until around 25 years of age. By increasing awareness of the brain processes being activated, a caregiver or educator is able to better understand that the child's behavior can be due to a basic need not being met, including lack of sleep and tiredness, being hungry or thirsty, or feeling unwell. Once the survival system is activated it will override the child's ability to connect and engage with adults and with their learning environment. Of course, if a child is experiencing anxiety as a result of feeling unsafe due to a problem at home or occurring in the early learning centre, then the survival system can be activated even more quickly.

Other reasons why adults need to self-regulate before supporting the child include the mirror neuron effect. This is when the adult's survival system can be activated as a result of observing the child becoming dis-regulated. Mirror neurons create an implicit response to the movements we observe and the affective intention they represent (Iacoboni, 2009). Equally, when educators are stressed, their behavior is affected by survival systems of the brain which can lead to children being activated too. In this regard, the child needs the adult to calm themselves so they are able to utilize their pre-frontal cortex to approach the child in an informed way rather than in a reactive way.

Specifically, it is important to understand that information from the environment, both external and internal, enters the limbic system, where it is evaluated as being safe or dangerous. The child is able engage and connect with the environment when the incoming information is deemed to be safe. However, if a child feels unsafe then the survival systems will be activated (Allen, 2019; Cozolino, 2014a). It is during this process that a child's behavior can become dis-regulated. Sometimes, this is when caregivers or educators believe that the child's behavior has accelerated from "1 to 100 in a split second". However, when we know the science we can understand that it is largely because the survival system has been activated which triggers the child's instincts to either run away from (flight), protect themselves (fight) or attempt to become invisible (freeze) in order to manage the activation of fear. Safety is always the first principle of neuroscience, because as



soon as safety feels compromised, the survival system will override all other systems of the brain. Therefore, fear based and tough love approaches are likely to exacerbate the activation of fear and anxiety, and the child's sense safety will be further compromised.

This is why we have the *misunderstanding*. The child's survival system activation is viewed as bad behavior - non-compliance, disrespect, oppositional defiance disorder or other similar diagnoses - rather than seeing a frightened being who needs help to down regulate and feel safe and belong (Allen, 2019; Vanderaa, 2019). The phrase, "You are safe and you belong" may be the most important words an adult can express to a child.

Science of Us

We can work together to make this planet a safer environment for our most precious assets, the "little people".

1. Be aware: Is the child's survival system active? Is my survival system active?
2. What do I need to calm me before I approach the child?
3. If I am not ready to approach the child, then check that the child is safe while I take time to breathe.
4. If the child needs assistance, work with another adult to support the child, while self-regulating.
5. Now approach the child but do not talk about the problem, rather redirect the child's attention to a neutral topic while gently moving them to another area of the house or learning centre. When moving, cortisol levels decrease and the survival system begins to deactivate while the emotional brain connects with the child's emotional brain. The calmness of the carer enables the mirror neuron effect. When the adult uses a calm tone, relaxes their body posture and acts with kindness, the child will mirror the emotional and the physical state of the adult.
6. When calm, the educator can acknowledge the child's emotion in relation to the situation when the dis-regulation occurred. It is best when this process is approached in a curious and interested way, while helping the child name the emotion and link it with the behavior. Now and only now, is the time to explore the reaction and offer other suggestions of ways to manage a similar challenge in the future.
7. Once the above has been achieved, the child will be more able to help identify warning signs with the adult, and together plan a process of helpful strategies to assist the child to self-regulate.

Summary

The main emphasis of providing information about the *Science of Us* is to explain how we can use our knowledge of the brain to regulate which areas of the brain are being activated, and focus on engaging and connecting through fun in learning with the focus firstly, on well-being then secondly, on performance. Research shows that a secure empathic environment activates the *smart brain* by creating safety and fun

through engaging and connecting with educators thereby assisting children to learn more, increase their learning capacity and ignite their passion for learning in every area of life.

The main goal is to link neuroscience principles with clinical skills to deliver a package to educators in an endeavor to increase their knowledge about the whole child in order for the child to feel safe and increase their sense of belonging on the planet in which they live!

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