Relational Healing for Relational Trauma:
Is there anything new the neuroscience can tell us?[1]

Abstract

In child and youth care we have known about the importance therapeutic relationships for a long time. In posing the question *can recent neuroscience tell us anything new about relationships?* this chapter highlights three propositions that throw new light on the meaning and functions of the relational approach to care and support.

In the helping professions, and in child and youth care in particular, we have known about the importance of healthy human relationships for a long time. From the days of Freud and the subsequent waves of 'dynamic' and 'attachment' theorists, through to contemporary trauma-based perspectives, the nature of a child's close relational connections has been understood to play a central role in their physical, social, emotional and cognitive development.

In psychotherapy, discussion of the central role of the therapeutic relationship in healing seems to have been a constant for decades, at least since the retreat of strictly behavioural perspectives. Researchers have found that the nature of the connection between a therapist and his/her clients accounts for a significant proportion of positive therapeutic change, regardless of the specific theoretical position or therapy employed (e.g. Asay and Lambert, 1999).

Decades of research into the factors that promote resilience in vulnerable children have likewise found that healthy, supportive relationships between children and adult mentors are the *sine qua non* of positive change (Benard, 2004; Masden, 2014). Suniya Luthar (2006) summed up her extensive research with the conclusion that 'resilience rests fundamentally on relationships' (p. 760).

The burgeoning body of research on human neuroscience, has served to reinforce the vital role of human connections in development. Where these early connections have been compromised, the research has pointed to the reparative role of later healthy connections and relationships. Bruce Perry, one of the leading figures of trauma research, has concluded that "relationships are the agent of change" (Perry & Szalavitz, 2006, p. 230) and there is now a rapidly growing branch of research that is referred to as 'relational' or 'interpersonal' neuroscience, popularised by clinicians and researchers such as Bonnie Badenoch, Louis Cozolino, Bruce Perry, Stephen Porges, Allan Schore, Daniel Siegel and Bessel van der Kolk.

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[1] This is a chapter from the book: Modlin, H., Freeman, J, Gaitens, C. & Garfat, T. (2021). *Relational Child and Youth Care in Action*. Capetown, SA: CYC-Net Press (pp. 4-16).

In child and youth care, healthy relationships between adult carers and children have long been seen as a central ingredient in change and growth. For example, the influential text, *The Other 23 Hours* (Trieschman, Whittaker & Brendtro, 1969) written from an ego-psychology perspective, has a chapter entitled, 'Building Relationship Beachheads'. Subsequent theorists have further elevated the importance of healthy relationships from something that is a key component of therapeutic care, to the very essence of what therapeutic care is all about (e.g. Baker & White-McMahon, 2011 & Purvis et al., 2013). Garfat and his colleagues (2012/2018) have championed the 'Relational' approach to child and youth care work and subscribe to the notion that the relationship itself, 'is the intervention' (Fewster, 2004).

So, with this weight of research evidence, experience and practice wisdom, is there anything about the healing role of positive relationships that recent neuroscience can throw fresh light on?

This chapter touches on just three of the many relational insights from contemporary neuroscience that hold special significance for our work with children and young people.

1. Broken relationships are at the very heart of trauma

Rather than being solely understood as a vehicle for healing and change, recent thinking puts relationships, and particularly broken relationships, at the heart of trauma itself. Bessel van der Kolk (2014), for example, states that "the essence of trauma is feeling god-forsaken, cut-off from the human race" (p. 335).

Peter Fonagy and his colleagues (2017) capture this theme succinctly: "an adverse event becomes traumatic when it is accompanied by a sense that one is not accompanied - that one's… mind is alone" (p.6).

Bonnie Badenoch (2017) likewise, observes that being alone "may be central to potential trauma becoming embedded trauma" (p. 10). She goes on to elaborate:

> Trauma is…a relational experience in that embedding of trauma may arise not primarily from the nature of events, but from who is with us before, during, and after overwhelming happening (or non-happening in the case of neglect)(p. 12).

How does 'being accompanied' prevent the embedding of trauma?

Elsewhere Fonagy (2018) explains that, "normally an accessible other mind provides the social referencing that enables us to frame frightening or otherwise overwhelming experiences". He believes that one of the key functions of parents in times of adversity, is to provide this framing or social referencing for children to help them process, and put adverse events into perspective, thus preventing them from being experienced as traumatic.

This sort of processing of events by a trusted parent or mentor helps to shift one's perspective from an overwhelming and terrifying subjective experience to one that includes objective appraisal and understanding. On a neurobiological level it helps to re-

integrate what has become dis-integrated and to "restore the proper balance between the rational and emotional brains" (van der Kolk, 2014, p. 205).

For many of the young people we work with, relational support was not available when they faced severe adversity. Perhaps the parent/s and other caregivers were unable or unwilling to provide the support; perhaps they did not know what was going on; or perhaps they, themselves were the source of the harm.

If the fundamental experience of trauma is a sense of separation and being alone in the face of severe adversity, it stands to reason that healthy, trust-based, restorative relationships must be at the heart of therapeutic change.

So how can we respond, sometimes years later, to support and promote healing for young people who did not get the relational support they desperately needed?

Here is Badenoch again:

> The ability to offer the safe sanctuary of presence is central to treating trauma…If we felt alone, we needed accompaniment. If we were frightened we needed protection. If we were shamed, we needed acceptance. If we were hurt we needed comfort…Lack of support in the midst of wounding seems central to the movement from potential trauma to embedded trauma, and the provision of support that is responsive to the particular wounds is equally central to healing (2017, pp.11-13).

These observations on the role of relationships in trauma and the healing process hold salutary lessons for those of us that encounter vulnerable children and young people in the course of our work. They are consistent with the broader psychotherapy research (cited above) which suggests that technique and therapeutic strategy, as important as these are, may be far less important in facilitating change and healing than the supportive presence of caregivers. The challenge for service providers, therapists and others, is whether we remain focused exclusively on learning and then imparting our skills and therapies in order to effect change, or on providing the ongoing relational support and accompaniment that so many of our young people need – in some cases well into adulthood.

As Badenoch suggests, the support provided needs to be more than just positive feelings and good times. In her words (above) the support needs to be responsive to the "particular wounds" of the child or young person which suggests that comprehensive assessments of need are important along with empathy and skills for listening (see Baker & White-McMahon, 2013).

Another major implication relates to the training and support provided for carers, teachers, and other mentors. How do we establish and maintain positive relationships and connections with our young people, many of whom are "adult wary", if not directly hostile? (Seita & Brendtro, 2005); what are the techniques for connecting that care workers need to learn and employ?; and how do we mentor those who provide relational care and treatment?

2. Feeling safe and the role of caregivers

There are numerous positive outcomes that derive from healthy relationships. For example, Garfat et al., (2018) note that their framework is a means to facilitate "growth, change and learning" while Li and Julian (2012), building on Bronfenbrenner's notion of the developmental dyad, focus on the learning of physical and social skills over time by drawing attention to the dynamic and developmental aspects of therapeutic relationships.

From the perspective of 'family privilege', most of the children and young people in care come from families that have been unable or unwilling to provide the vital developmental supports that every child and young person needs; they have had to find a way to cope without the "invisible package of assets and pathways, which provides the young people with a sense of belonging, safety, unconditional love, and spiritual values (Seita & Brendtro, 2005, p. 10). If these are the products of healthy parental relationships, they also highlight the needs of young people, who, by definition, do not benefit from family privilege. They must also inform the intervention priorities for care providers.

The centrality of safety and feeling safe

Amongst the many functions of healthy relationships is one that has been emphasised by many theorists since Maslow's early work (1943,1954) but is now receiving renewed attention – it is the meeting of a child's need for safety and protection.

John Bowlby, in calling attention to the so-called attachment behaviours of infants, accepted that basic nurture was part of the picture, but, controversially at the time, suggested that the primary function of attachment was protection; that the foundational biological imperative was for an infant to be safe (see Bowlby, 1988, p. 27).

Many children and young people in care settings have been exposed to severe adversity throughout their early development and one of the consistent findings from developmental neuroscience is that they do not feel safe. Bruce Perry observes that these children "reset their baseline levels of arousal, such that – where no external threats are present – they will be in a physiological state of persisting alarm" (Perry & Szalavitz, 2006, p. 32).

The emphasis in recent years has shifted from an objective appraisal of a child or young person *being* safe to ensuring that they *feel* safe (see Porges, 2017 & Purvis et al., 2013). Bessel van der Kolk (2014), for example, maintains that "being able to feel safe with other people is the single most important aspect of mental health (p. 81).

The work of Stephen Porges (2011, 2015, 2017) has added a great deal to our understanding about the mechanisms involved in feeling safe. He suggests that feeling

unsafe is a default human state and that we are dependent on others around us to provide visual and auditory cues that help us manage our internal states: "Humans" he suggests, "are on a quest to calm neural defence systems by detecting features of safety…" (2015, pp. 121-122).

So what are these features of safety?

Porges, who trained in neurophysiology, describes a number of neural mechanisms connected to both the sympathetic nervous system and the parasympathetic vagal nerve system – both of which are involved in social engagement and the assurance of safety. The sympathetic nervous system ensures a person is activated and alert to get on with tasks. It also prepares the body to respond to perceived threat through "defensive" strategies such as fight and flight. The parasympathetic vagal nerve system, on the other hand, is associated with healing and the restoration of physical calming, but also with emergency safety responses to very high and imminent levels of threat.

Porges observes that striated muscles of the head (involved in head orientation, facial expression, eye contact, hearing and voice tone) are directly connected, through the vagal nerve, to visceral organs such as the heart and respiratory system. Internal indications of stress or anxiety such as higher heart rates and faster breathing, are directly reflected in our facial expressions, eye contact and verbal tone. These are components of what is termed the "social engagement system" (Porges, 2017, 26-27).

Similarly, the visual and verbal expressions of those around us are interpreted through a process called 'neuroception' and, via vagal mechanisms, directly modulate the functioning of our visceral organs involved in blood circulation and respiration (Porges, 2017, 19-20). Friendly, non-threatening visual and auditory signals from others (such as soft eye contact, relaxed facial muscles, higher modulated voice tones) result in higher vagal tone and a calming of heart rate and respiration which promotes a felt sense of safety and relaxation that facilitates social engagement.

On the other hand, unsettling or threatening signals from others, for example (stares, facial expressions of anger, loud and lower unmodulated tones) automatically result in an increased heart rate and circulation, faster breathing, and heightened perception, all of which help prepare the body for defensive 'fight or flight'. Even low, unmodulated sounds in the general environment can trigger these defensive visceral responses.

Very high signals of immediate threat can trigger a more extreme visceral shut-down or "freeze" response, mediated through the dorsal branch of the vagal system. This may involve general immobilisation, suppression of heart rate, respiration, digestion and relaxation of the sphincter, sometimes resulting in involuntary defecation.

Central to Porges' Polyvagal Theory is the function of a more recently evolved portion of the vagal nerve (the ventral vagal branch or "smart vagal") that is exquisitely sensitive to the social cues of others, particularly those that we trust and are comfortable with (Porges, 2015, pp. 118-119; 2017, pp. 26-28). In social interactions we actively look for

positive visual and verbal cues such as relaxed eye contact and facial expression, and a soft and prosodic tone of voice, as these are immediately reflected in a lowering of our heart rate and felt levels of anxiety. In response to these signals the "smart vagal" dampens and modulates our sympathetic arousal – a function that Porges refers to as the "vagal brake" (2017, p. 30). At the same time it is also sensitive to unsettling or threatening signals such as firm eye contact and loud, deep and unmodulated voice tones – in these circumstances its tone slackens allowing sympathetic arousal to escalate, preparing us for defence and to fight back or to withdraw.

Although there are always conscious processes and interpretations at play in interpersonal exchanges as well as implicit memories from our accumulated experiences, the interpretative ("neuroceptive") and physiological processes Porges describes, are essentially autonomic; that is, they operate involuntarily in the background, unconsciously influencing our social interactions (Porges, 2017, pp. 4-7; 19-20).

Crucially, Porges reminds us that feeling safe is quite different to being safe. He suggests that we often equate safety with the removal of threat and what he calls "features of safety" such as locked doors, law and order policies and the punishment of offenders. However, it is the "active presentation of features of safety that our nervous system craves" and continuously monitors (2015, p. 115).

There is no "set and forget" process to help our young people feel safe – they need the active and ongoing commitment of carers, mentors and therapists to provide visual and auditory cues of safety, often when they, themselves may feel agitated, angry or unsafe.

An important observation by Porges is that our autonomic quest for cues of safety is a lifelong one, not one that can be 'fixed' by a timely intervention or even maturation and the passage of time. He points out that "this quest is initiated at birth" and "continues throughout the lifespan, with needs for trusting friendships and loving partnerships (2015, p. 122). This echoes what Bowlby (1988) said about the importance of attachment throughout life: "To remain within easy access of a familiar individual known to be ready and willing to come to our aid in an emergency is clearly a good insurance policy – whatever our age" (p. 27).

So the emerging neuroscience throws new light on the vital role we play as caregivers and the client needs we can meet. Our young people need from us a quality of relationship that not only engenders trust, but one that can also actively assist them through the provision of safety cues. Moreover, it reminds us that this is something that our young people will always need, whether from us or from the other relationships they form in life.

3. Relationships and self-regulation

We know that one of the key outcomes of exposure to developmental trauma is an impaired ability to manage unruly emotions (see for example, McLaughlan, Colich,

Rodman & Weissman, 2020, pp. 4-5). From a therapist's perspective Allan Schore (2012) states that,

> The most significant consequence of early relational trauma is the child's failure to develop the capacity to self-regulate the intensity and duration of emotional states (p. 65)

van der Kolk (2014) concurs but broadens the scope somewhat. He suggests that "at the core of traumatic stress is a breakdown in the capacity to regulate internal states" (p. 207) which include emotions but also cognitions, feelings and sensations.

A compromised ability to adaptively manage cognitions, emotions and impulses, can have profound impacts for trauma-exposed young people in their family, learning, social and work contexts, right through the lifespan (Moffitt, Poulton & Caspi, 2013).

So how do we help children and young people manage their unruly emotions?

For decades, psychologists, other therapists and mentors have taught a range of strategies to help young people learn to identify and safely manage troublesome emotions like anger, fear and shame. The use of positive behavioural support techniques, based on learning theory, is popular in special care and school settings (e.g. Tincani, 2007) and behavioural strategies based on punishment and aversive consequences also continue to be used in some settings. Cognitive-behavioural techniques such as cognitive reappraisal have been used widely in clinical and psychoeducational settings in recent decades (Child Welfare Information Gateway, 2013; and Cutuli, 2014), while techniques based on the principles of mindfulness are increasingly being explored around the world (Cottrell, 2018; and Waters, Barsky, Ridd & Allen, 2014).

It is likely that we learn self-regulation skills in a variety of ways and that multiple theoretical perspectives are relevant, but a strong and consistent message from the emerging neuroscience suggests that there is a key element, a necessary ingredient, that is sometimes overlooked or minimised. Here, for example, is Daniel Siegel:

> Dyadic regulation shapes self-regulation…the child learns to regulate his/her own states of arousal and inner processing through interactions with another (Siegel, 2012, p. 103)

Likewise, Allan Schore (2012) demonstrates that at its root, the ability to learn self-regulation is dependent on there being available trustworthy, empathic, and committed caregivers. The key mechanism, he suggests, is "how to be with the child, especially during stressful moments" (p. 44).

Porges (2017) does not consider self-regulation to be a "learned skill" at all, rather, it is something that emerges as a product of "co-regulation" – his polyvagal theory emphasises that self-regulation is a product of "the mutual, synchronous, and reciprocal interactions between individuals…" (p. 25).

The strongly emerging theme here is that self-regulation skills are more a product of healthy human connections than something that is formally taught and learnt. As the child reliably experiences empathic support and co-regulation when he/she is distressed or anxious, they understand that support and protection is at hand and that unruly emotions can be tamed. In time, these experiences of co-regulation and the implicit memories they generate, contribute to an enhanced capacity to self-regulate

Is there such a thing as self-regulation?

Referencing the ground-breaking discovery of mirror neurone systems in the social engagement regions of the brain, Bonnie Badenoch, (2017) cites Iacoboni in taking the discussion of self-regulation to another level:

> We empathize effortlessly and automatically with each other because evolution has selected neural systems that blend self and other's actions, intentions, and emotions. The more we learn about the neural mechanisms of mirroring, the more we realise that the distinction between self and other may be almost fictitious in many cases (Iacoboni, 2011, p.57, cited in Badenoch, 2017, p. 187).

She goes on to question the very notion of self-regulation:

> Rather than advocating teaching self-regulation, we might speak about entering into relational environments that support internalization of nourishing others for ongoing regulation (p. 193).

For Badenoch, the capacity to self-regulate is generated primarily from the "internalisation" of significant people in our lives – those who have informed our experiences and the resultant implicit memories of what happens in times of stress and anxiety. As Louis Cozolino (2014) has observed, such implicit social memories "shape our emotional experiences" and "form the infrastructure of our lives" (pp. 133-134).

If the learning of self-regulation rests primarily on the experiences of co-regulation that children and young people have had, for those who did not have the benefit of this early support, caregivers and mentors must commit to an ongoing journey of empathic co-regulation. In time, these positive, supportive experiences at times of stress should help young clients to reshape their implicit memories and support them to safely manage their internal worlds.

This is not to say that there is no place for the teaching of specific techniques to build self-regulation capacities but that these need to be provided in the context of ongoing positive experiences of co-regulation. The clear and consistent message from emerging neuroscience is that healthy, therapeutic relationships are the "active ingredient" in healthy development (Li & Julian, 2012).

By way of summary, recent findings from neuroscience have strongly supported the received wisdom in our field, that 'relationships are the agent of change' (Perry & Szalavitz, 2006, p. 230). Amongst other things, they suggest 1. that trauma itself

can be defined as a failure of relational support and that healing must therefore involve relational repair; 2. that caregivers, mentors and therapists need to provide active visual and auditory cues of safety for vulnerable children and young people, particularly during times of relational stress; and 3. that self-regulation is more a product of reliable relational support and modelling than it is of formal teaching and learning.

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Bio

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