

BRAIN • CONNECTION • FAITH

Relational Brain Skills

Development, Recovery
and Spiritual Growth



About this book

Purpose and starting point

An extended essay for interested readers, parents, practitioners and Christian communities. Its starting point is the supplied article by Gerard Feller from May 2017. The new text is an independent expansion and critical update, prepared for FellerBooks with AI assistance. The source article is not treated as a current clinical guideline. This English edition translates the complete Dutch book, including its tables, infographics and supporting material.

Three kinds of statement

This book distinguishes empirical research, theoretical and educational models, and evangelical Christian faith claims. Practical examples and exercises are the book's own applications. They are not validated tests or a standalone treatment programme. A research association is not an individual diagnosis.

Use and responsibility

Severe or persistent symptoms warrant professional assessment. Where violence or coercion is present, protection takes precedence over joint exercises. Do not change medication or treatment on the basis of this book. Pastoral support and professional care can complement one another when consent and responsibilities are clear.

Publication details

FellerBooks • fellerbooks.com. English edition, October 2026; translated from the Dutch edition of 23 October 2026. Cover: an AI-generated illustrative photograph; the people shown are not portrayed clients or researchers. Four infographics and six overview tables were designed for this publication. Internet sources were consulted for the original edition on 23 October 2026. Biblical passages are mainly discussed in the book's own words.

Reader's guide

A continuous argument

The first six chapters define the subject and trace its historical development. Chapters 7-19 discuss brain physiology. Chapters 20-27 connect development with the most important skills. Chapters 28-32 address therapy and pastoral care. Chapters 33-40 provide an evangelical Christian discussion and a practice journey.

Reading with discernment

Numbers in square brackets refer to the numbered references at the end. Classic books provide historical background. Reviews, individual studies, guidelines and methods' self-descriptions have different evidential weight. The selected sources do not constitute a complete systematic literature review. Opposing publications from 2026 are included in the discussion of polyvagal theory.

Images and tables

The infographics are educational overviews, not anatomical scans. They have text alternatives in the e-book. Tables help comparison but do not replace the explanations in the chapters. The critical rereading of the source article makes clear where this edition departs from the original explanation.

PDF and EPUB3

The PDF has fixed pages, a contents list, bookmarks and clickable references. EPUB3 contains the same text with reflowable formatting, navigation and accessible tables. The number of screen pages depends on the device and font size; the minimum of 35 pages is assessed against the PDF. Bibliographic titles retain the wording of the original publications. The diagram's emergency number, 112, follows the original European context; elsewhere use the appropriate local emergency number.

Contents

01 Relational brain skills: a working definition	6
02 Historical foundations: emotion, learning and the social person	7
03 Bowlby, Ainsworth and the significance of attachment	8
04 Winnicott, Stern and Tronick: attunement and repair	9
05 Damasio, Schore, Siegel and contemporary research	10
06 The Life Model: helpful language and explanatory limits	11
07 Neurons, synapses and the biological basis of learning	13
08 Glia, myelin and why learning is not instant rewiring	14
09 Two hemispheres, many connections	15
10 Perception: face, voice, attention and meaning	16
11 Amygdala and hippocampus: meaning in context	17
12 The prefrontal cortex: choices without a central character switch	18
13 Interoception: noticing the body without making it infallible	20
14 Brain networks: mentalising, attention and self-awareness	21
15 Stress, autonomic regulation and the vagus nerve	23
16 Reward, motivation and human bonding	24
17 Development, sensitive periods and neuroplasticity	25
18 Memory, habits, sleep and generalisation	27
19 Co-regulation, synchrony and the other person's freedom	28
20 Where development becomes stuck: threat and deprivation	30

Contents continued

21 Trauma, shame, dissociation and protective patterns	31
22 Life stages, neurodiversity and communication styles	32
23 Joy, attention and an appreciative presence	33
24 Recognising, tolerating and regulating feelings appropriately	34
25 Empathy and mentalising: understanding without mind-reading	36
26 Boundaries, consent and relational courage	37
27 Conflict and repair: acknowledging guilt without governing through shame	38
28 Therapeutic assessment: from an isolated skill to a coherent understanding	40
29 CBT, DBT and MBT: different paths towards relational action	41
30 Trauma treatment: processing with expertise and choice	42
31 Parenting, partnerships and learning in daily life	43
32 Immanuel, prayer and experiential guidance	44
33 An evangelical view of the person: body, dignity and community	46
34 Being born again: a new relationship with God	47
35 Sanctification: learning to inhabit a new identity	48
36 Images of God, attachment and spiritual alienation	50
37 Renewing the relationship with God: Scripture, prayer and obedience	51
38 Discerning God's guidance without absolutising inner impressions	52
39 A church that genuinely supports relational growth	54
40 An eight-week practice journey: integration into ordinary life	55

Four infographics and six tables appear between the chapters. At the end: reflection questions, a Bible reading guide and 39 numbered references.

Relational brain skills: a working definition

Relational brain skills are learned capacities that enable someone to make contact, tolerate being in contact and seek reconnection after a disruption. Examples include paying attention, recognising feelings, exploring another person's perspective, respecting boundaries and taking responsibility. The term brain skill emphasises that these capacities have a bodily basis. It does not mean that each skill has its own clearly defined brain region. Relationships develop between people, within a history and a social environment; they cannot be fully described as activity inside one person's head.

A useful definition connects four levels. At the bodily level, it concerns perception, arousal, sleep and recovery. At the psychological level, memories, expectations and choices. At the social level, reciprocity, power and reliability. An evangelical perspective adds the relationship with God: receiving grace, love and responsibility. These levels influence one another, but they are not interchangeable explanations. An increased heart rate does not prove sin. A spiritual conviction does not prove neurological change.

Social neuroscience investigates aspects of this interaction. Adolphs describes social knowledge as the work of several interconnected systems. Perceiving what someone does, assessing what it means and deciding how to respond are different processes. [2] The supplied article from 2017 also uses the Life Model and the language of relational circuits. That framework can help people discuss their experiences, provided a practical metaphor is not presented as a directly measured brain state. [1]

Consider someone who hears criticism and immediately becomes defensive. The relational goal is more than calmness alone. It is to hear the words more accurately, recognise arousal, set a boundary against an unfair accusation and receive justified correction. Success becomes evident in the course of the encounter: greater freedom, greater truthfulness and less harm. A relaxed smile without freedom may actually conceal that something is wrong.

Historical foundations: emotion, learning and the social person

Thinking about relational development predates the brain scanner. In *The Expression of the Emotions in Man and Animals*, published in 1872, Charles Darwin explored how emotions become visible in the body and in expression. In 1890, William James brought attention, habit and experience together in *The Principles of Psychology*. Their work made clear that feelings are more than isolated thoughts. It was not yet a modern explanation of social brain networks; many historical assumptions have since required revision. [3]

Research on learning added a second strand. Pavlov studied conditioned responses; later learning psychology investigated how consequences strengthen or weaken behaviour. In 1949, Donald Hebb put forward an influential account of coordinated neuronal activity and learning. The familiar popular summary that neurons active together become connected is a memory aid, not a complete law of every kind of human change. Learning also involves inhibition, unlearning, expectations, context and distinguishing between situations. [3]

This history helps explain an everyday pattern. A child whose attempts at closeness are mainly followed by rejection may become hesitant. That behaviour is more than a consciously held belief. It may reflect an automatic expectation that developed long before any conversation about thoughts. Yet this does not make talking pointless. New words can organise experiences, reveal alternatives and change subsequent behaviour. Experiential learning and reflection complement one another.

A third historical strand is moral and spiritual. For centuries, Christian communities have spoken about love, hospitality, forgiveness, self-control and the formation of habits. These are not pre-scientific names for individual neurotransmitters. They are claims about a good life and the relationship with God. A contemporary essay should take these sources seriously without retrospectively relabelling their language as brain physiology. Science can investigate the conditions under which people find it easier to listen; that does not determine why every person has dignity or why abuse is wrong.

Bowlby, Ainsworth and the significance of attachment

John Bowlby approached the bond between child and caregiver as a system that organises proximity and protection. Mary Ainsworth investigated the quality of that bond through careful observation of interactions. The Strange Situation uses standardised conditions to examine how young children respond to brief separation and reunion. Their work shifted attention beyond feeding or discipline towards availability, comfort and the opportunity to explore the world from a secure base. [4]

Attachment is relational and context-dependent. A child may develop different expectations with different caregivers. The usual classifications are research categories, not complete descriptions of character. An avoidant response, for example, does not mean that a child has no need for closeness. An insecure classification is not automatically a psychiatric attachment disorder either. Such a diagnosis requires a particular history and professional assessment. The word attachment loses its value when it is used to explain every difficult behaviour.

The lasting contribution of this research lies in asking what a child can do with distress. Is sadness noticed? Is comfort appropriate rather than intrusive? Can the child become independent again after receiving support? A sufficiently available caregiver does not have to remain attuned at every moment. A parent can make a mistake, repair it and become available again. Striving for perfect attunement often makes parents more anxious while doing little to help the child.

In adulthood, similar questions arise in partnerships, friendships and experiences of faith. People differ in their tendency to seek help, expect rejection or keep their distance. The current relationship still needs examination. Distrust may be an old expectation, but it may also be an appropriate response to genuinely unreliable behaviour. A therapist or pastor who interprets every boundary as an attachment problem may reinforce an unsafe situation. Sound application of attachment knowledge therefore encourages curiosity rather than a label that deprives another person of their own judgement.

Winnicott, Stern and Tronick: attunement and repair

With the concept of the good enough mother, Donald Winnicott offered an important correction to the ideal of perfect parenting. In his clinical thinking, a child can grow when the environment provides sufficient support and gradually makes room for the child's own capacities. Daniel Stern described the subtle world of timing, intensity and affective attunement between young children and caregivers. These contributions arose from clinical observation and developmental research; not every element has the same empirical status. [5]

Edward Tronick and colleagues investigated what happens when a parent maintains an expressionless face during a brief interaction. Babies respond to the disappearance of the usual reciprocity. Still-face research showed that even very young children are not passive recipients: they expect a response and try to influence the interaction. A brief laboratory interruption, however, is not the same as chronic neglect. A video of such an experiment cannot establish a diagnosis about a family. [6]

One practical implication is that repair matters more than uninterrupted harmony. A parent who speaks too loudly and then calmly acknowledges what happened can model responsibility. The child does not have to comfort the parent. Instead, the child experiences that tension does not mark the final end of the relationship. Something similar applies to adults: a missed message can be clarified without denying the reality of the hurt.

Concrete repair starts small. The speaker identifies what they did, asks about its effect and listens without immediately defending themselves. Appropriate behaviour then follows. An apology repeated without behavioural change loses its sustaining significance. Relational development therefore requires more than warm attention. It requires a predictable connection between words, actions and consequences. This makes attunement both a moral and a practical skill; knowledge about the brain alone cannot guarantee it.

Damasio, Schore, Siegel and contemporary research

Antonio Damasio helped clarify that emotions and bodily signals participate in decision-making. Damage to certain frontal systems can profoundly alter everyday judgement and social functioning while performance on some traditional intelligence tasks remains relatively good. This makes the famous history of Phineas Gage significant. It does not, however, prove the existence of a single personality centre or that character resides exclusively in the right hemisphere. Historical injury cases also require caution in reconstruction. [7]

Allan Schore connects early affect regulation and attachment with the development of predominantly right-hemisphere processes. Daniel Siegel popularised interpersonal neurobiology: an integrative approach to brain, mind and relationships. Both have helped therapists and educators pay greater attention to bodily attunement. Their overarching models include interpretations that extend beyond what a single experiment can establish. A scientific-sounding conceptual framework remains a model when its overall coherence has not been directly tested. [8]

Other contemporary research programmes are more narrowly defined. Ruth Feldman studies human bonding and synchrony. Amy Arnsten investigates how stress affects prefrontal functions. Katie McLaughlin and Nim Tottenham examine different forms of early adversity and development. Peter Fonagy and Anthony Bateman connect mentalising with treatment research. Marsha Linehan developed dialectical behaviour therapy with explicit skills training. The field therefore consists of multiple programmes with different research questions, rather than one unified school with a definitive diagram of the brain.

The same question is useful throughout: precisely which claim is being supported? An imaging study can show an association between a task and brain activity. A randomised treatment study can address average outcomes in an investigated group. A personal testimony can describe a valuable experience. These three sources answer different questions. Bringing them together carefully does not mean that every researcher endorses every part of a Christian model of formation.

The Life Model: helpful language and explanatory limits

Gerard Feller's supplied article from 2017 connects Christian formation with the Life Model. Jim Wilder, Chris Coursey, Marcus Warner and Karl Lehman are important names in this field. Their emphases differ: relational maturity, practising skills, leadership and the Immanuel Approach. THRIVEtoday describes how relational skills training developed from the beginning of this century. This is information from the developers, not an independent measurement of effectiveness. [1] [9] [10]

One strength of this tradition is its recognition that explanation alone is often insufficient. Someone may understand a sermon about patience yet repeatedly react harshly. Practising pauses, sharing joy and staying connected may help translate knowledge into behaviour. The acronym RARE summarises four ideals: Remain Relational, Act Like Yourself, Return to Joy and Endure Hardship Well. These ideals can be discussed without declaring them to be four separate brain circuits. [11]

THRIVE's nineteen skills are one particular educational classification. There is no universally accepted neurological inventory of exactly nineteen relational capacities. Likewise, saying that a relational circuit is off is not a diagnosis based on a brain measurement. It may mean that someone currently shows little curiosity about another person. That is a useful observation as long as fatigue, neurodiversity, culture, power and actual danger are also considered.

This essay therefore retains the relational learning objective while updating the explanation. It does not set fixed processing speeds of five against six hertz, claim a general two-hundredfold acceleration or guarantee a timetable for forming new habits. Such precise numbers require specific evidence that the supplied article does not provide. We can defend the importance of practice without making an appealing brain explanation stronger than the evidence allows.

Lines of thought and their contributions

Historical influences and current research programmes complement one another. The table shows each line's contribution and the limits of its conclusions.

Thinker or approach	Contribution	Important limitation
Darwin; James; Hebb	Expression, bodily emotion, habit and learning. [3]	Historical ideas are not a complete modern theory of the brain.
Bowlby; Ainsworth	Attachment, secure base and research on reunion. [4]	A classification is not a complete identity or automatically a disorder.
Winnicott; Stern; Tronick	Good enough care, attunement and reciprocity. [5] [6]	Distinguish clinical theory from laboratory observation.
Damasio; Schore; Siegel	Body, emotion, regulation and integrative models. [7] [8]	No single centre for character; not all proposed integration is directly tested.
Adolphs; Frith; Menon	Social cognition and cooperating networks. [2] [17] [19]	Task activity is not a measure of moral worth.
Feldman; Arnsten	Bonding and synchrony; mechanisms of stress. [16] [20]	Group findings are not a personal brain diagnosis.
McLaughlin; Tottenham	Adversity and developmental context. [23] [24] [25]	Risk is not an inevitable destiny.
Linehan; Fonagy; Bateman	Skills and mentalising in researched treatments. [32] [33]	The studied population and full treatment setting matter.
Wilder; Coursey; Warner; Lehman; Willard	Christian formation, relational practice and pastoral care. [9] [10] [11] [36]	Theological significance differs from independent clinical evidence.

Neurons, synapses and the biological basis of learning

A neuron receives signals through its dendrites and cell body. When electrical conditions change sufficiently, an action potential may arise near the origin of the axon. That signal travels along the axon. At many terminals, a chemical messenger is released and binds to receptors on another cell. The receiving cell integrates many signals at once. This fundamental process supports both noticing a face and speaking a sentence, without any individual cell containing the full meaning of a relationship. [12]

Glutamate is an important excitatory neurotransmitter in many brain circuits; GABA often has an inhibitory effect. Their effects depend on receptors, cell type and developmental stage. Inhibition is not a malfunction that needs to disappear. It helps select and constrain activity. Conversation actually requires some impulses not to lead immediately to action. A simple opposition between a good calming substance and a bad activating substance therefore misrepresents physiology.

Learning may involve changes in the strength of synaptic transmission, the number and properties of receptors and the organisation of networks. Long-term potentiation and long-term depression are examples of investigated forms of synaptic change. A relational habit, however, is not directly equivalent to one of these laboratory processes. Several steps of evidence are needed to move from a biological possibility to a specific treatment claim.

For practice, this means making the desired response recognisable, repeating it under suitable conditions and asking for useful feedback. A vague intention to be more loving offers little guidance. A concrete intention to ask one clarifying question first is more observable. Practising that in calm situations builds experience that may become available later. We assess whether behaviour actually changes through encounters, not through an imaginary photograph of newly formed connections.

Glia, myelin and why learning is not instant rewiring

Alongside neurons, the nervous system contains several types of glial cells. Astrocytes support the chemical environment and the handling of neurotransmitters, among other functions. In the central nervous system, oligodendrocytes form myelin around portions of axons. Microglia have roles in immune defence and maintenance. White matter contains many myelinated connections; grey matter includes cell bodies, dendrites and synapses. This anatomical distinction does not mean that white matter is a separate storage place for every character habit. [12]

Myelin helps electrical signals travel efficiently along axons. The properties of connections can change during development and learning. Neuroimaging also shows structural changes following learning. Zatorre, Fields and Johansen-Berg emphasise that a change on a scan cannot simply be translated into one cellular mechanism. A measured difference may have several biological causes. Claiming that a course demonstrably produces new myelin therefore requires much more than a positive experience among participants. [13]

Relational learning is also about more than speed. A rapid response may reflect well-practised care, but it may also reflect a persistent misinterpretation. Sometimes slowing down is precisely what is needed to examine an automatic expectation. The quality of the response depends on context, responsibility and attunement, not solely on how quickly it becomes available.

A helpful image is an ensemble learning to play together. The players do not all need to play louder; they need to enter, listen and stop at appropriate moments. This, too, remains an analogy. Brain networks are not an orchestra with one visible conductor. The image simply helps us remember why repeated practice, opportunities for recovery and sound guidance matter together. There is no biological deadline after which a complex relational change is complete for everyone.

Two hemispheres, many connections

The brain's hemispheres are not identical. In many people, certain language functions are more strongly organised on the left; other tasks show different patterns of specialisation. The corpus callosum and other connections contribute to cooperation. This does not establish a general distinction between rational left-brained people and relational right-brained people. A large-scale analysis of functional connectivity found no support for that kind of global classification of individuals. This does not deny local lateralisation. [14]

An encounter requires many kinds of processing simultaneously. You hear words, recognise prosody, retain earlier sentences, consider the situation and estimate intentions. Conscious and less conscious processes overlap and influence one another. It may be helpful to distinguish a rapid automatic expectation from a slower reconsideration. It is inaccurate to assign those processes simply to one left and one right circuit.

Hertz also needs explanation. One hertz means one cycle per second. Brain rhythms are described in frequencies, but the frequency of a measured oscillation is not a general measure of how quickly identity, love or consciousness operates. The source article's claims about five and six hertz cannot serve as physiological support for an entire model of change. Without a precisely defined measurement, such figures mainly create an appearance of certainty.

A meaningful practical insight remains: understanding differs from being able to act under pressure. Learning a new response requires both words and concrete experiences. An exercise may begin nonverbally, for example by noticing how close someone prefers to sit. Language can then clarify consent and difference. The whole person learns; words, attention, body and social context work together. A good course does not need to devalue language to defend the importance of experience.

Perception: face, voice, attention and meaning

Social perception does not begin with a perfect recording. The brain selects information and uses previous experience to make meaning. Visual areas contribute to distinguishing faces; regions around the superior temporal sulcus participate in processing changing social signals, such as gaze direction and movement. Alongside words, voices carry tempo, pitch and intensity. The relationship between these signals helps us understand what another person may mean. [15]

That interpretation remains fallible. A frown may express disapproval, but also concentration or pain. Limited eye contact may reflect arousal, cultural convention, autism or simply the need to listen more effectively. No isolated facial signal gives reliable access to another person's inner world. One relational skill is therefore treating an initial interpretation as provisional: I notice that I am reading your silence as anger; is that right?

Attention is limited. In a crowded room, with sleep deprivation or with a great deal of simultaneous information, someone may miss important nuances. Merely intensifying the explanation can increase the burden. A quieter environment, one topic at a time and slightly more processing time may improve the encounter. These are adjustments to circumstances, not evidence that the other person is less relationally developed.

The moral significance of this physiology is modest but important. We should be cautious about confident claims concerning intentions. At the same time, nobody has to treat every harmful statement endlessly as a misunderstanding. Words, actions, patterns and responses to a clear boundary contribute together to an assessment. A curious question is particularly helpful when both people are sufficiently free to answer honestly. Where intimidation is present, the first task is to arrange safety and appropriate support rather than to read faces more accurately.

Amygdala and hippocampus: meaning in context

The amygdala is a group of nuclei in the medial temporal region. It participates in learning about and recognising emotionally relevant information. Its functions extend beyond fear alone. It works with sensory areas, the hippocampus, prefrontal regions and bodily regulatory systems. The popular label fear centre oversimplifies this picture. A threatening situation does not activate a separate button that completely switches off the rest of the person. [15] [16]

The hippocampus plays an important role in episodic memory and in connecting experiences with context. When someone hears a loud voice, it matters whether that voice belongs to a noisy game or to a former abuser. The present sound and earlier memories may jointly shape the response. This helps explain why an apparently minor event can provoke considerable arousal. It does not establish which past event caused it.

Remembering is reconstructive. People do not preserve a complete film that the right exercise can retrieve without error. New information, expectation and the way questions are asked can influence the account. Therapy and pastoral care therefore require restraint with leading questions about hidden abuse, prenatal events or supposed messages that others might have spoken. An intense experience does not automatically make a memory historically reliable.

In support work, it is often sufficient to examine what is happening now. Which cue is noticed, what expectation follows and what choice is possible? Someone can learn to distinguish then from now without establishing every detail of the past. Where actual danger exists, it must not be explained away as merely an old alarm system. The task is to take both current risk and learned responses seriously. This avoids both minimising trauma and hastily constructing a life history.

The prefrontal cortex: choices without a central character switch

The prefrontal cortex comprises several regions at the front of the brain. Dorsolateral networks contribute to working memory and maintaining a goal, among other functions. Ventromedial and orbitofrontal regions participate in valuation, anticipated consequences and decision-making. The medial frontal cortex plays a role in several forms of social cognition. These functions arise through connections with other systems; they are not a separate executive operating independently of body and emotion. [7] [17]

During conflict, working memory is needed to retain the topic while the other person speaks. Inhibitory control helps prevent a hurtful response from being carried out immediately. Flexibility makes it possible to revise an initial interpretation. Severe arousal, substance use, brain injury or exhaustion may put these capacities under pressure. This may help explain behaviour, but it does not automatically remove all responsibility. Responsible action may include leaving a demanding situation earlier or seeking appropriate care.

Arnsten describes how intense, uncontrollable stress can disrupt prefrontal circuits through mechanisms including catecholamines. Some of this mechanistic knowledge comes from animal research. We should not simply translate the findings into an individual claim about damaged brains after every difficult conversation. This research does, however, support the importance of conditions in which people can think and choose again. [16]

A practical adjustment is to reduce the cognitive demand as arousal increases. Replace an interrogation covering six topics with one concrete question. Replace a demand for immediate reconciliation with a manageable follow-up arrangement. More complex reflection can come during a calmer period. This does not license avoiding difficult conversations indefinitely. It improves the conditions for responsibility, so that someone can actually do what they already understand in calmer moments.

Physiology in context

The listed functions are examples within networks. One region usually does more than one thing, and one skill draws on several regions.

System	Participates in	What not to infer
Neuron and synapse	Signal transmission and changing connection strength. [12]	A new belief is not one new wire.
Glia and myelin	Support, maintenance and conduction. [12] [13]	No fixed timetable for rewiring character.
Sensory and temporal regions	Faces, voices, movement and meaning. [15]	A gaze or face does not reveal an intention with certainty.
Amygdala and hippocampus	Relevance, learning, memory and context. [15]	Not exclusively fear; not a flawless recording of the past.
Prefrontal regions	Goals, evaluation, inhibition and working memory. [16] [17]	No central switch for identity, faith or goodness.
Insular and cingulate regions	Bodily information, attention and meaning. [18]	A bodily feeling is not an infallible judgement of safety.
Striatum and neuromodulation	Motivation and reward learning. [20] [21]	Dopamine is not simple happiness; oxytocin is not always prosocial.
Autonomic and hormonal systems	Bodily adaptation and stress responses. [12]	Heart rate or HRV does not provide a complete relational diagnosis.

Interoception: noticing the body without making it infallible

Interoception is the processing of signals about the body's condition. Breathing, heartbeat, gastrointestinal activity and other internal processes influence experience and behaviour. Information reaches the brain through various neural pathways and bodily routes. The insula and parts of the cingulate cortex participate in networks connecting bodily state, attention and meaning. Critchley and Harrison describe this reciprocal influence between body and brain. The precise experience emerges from a broader interaction. [18]

This explains why relational tension is often experienced physically. A dry mouth or pressure in the chest may become noticeable before a clear thought. Such signals deserve attention, but their interpretation is not self-evident. Palpitations may be associated with anxiety, exertion, caffeine or a medical cause. Concluding that the body always tells the truth about another person turns a valuable source of information into an infallible judge.

A simple exercise is to remain descriptive. Rather than immediately saying that someone feels unsafe, you can notice that your shoulders are tense and you feel inclined to look away. You then explore the situation, personal history and possible choices. If attention to the body increases distress, it may be better to keep your eyes open and look around the room or do an ordinary activity. Looking further inward is not helpful for everyone at every moment.

Bodily experience also calls for discernment in the life of faith. Warmth, tears or stillness may accompany an encounter with God. They are not reliable measures of God's nearness or proof of a specific divine message. A person can pray sincerely while their body remains unsettled. Understanding this allows bodily care to be received without giving every sensation a spiritual explanation. Attention to the body supports freedom when it increases curiosity and leaves room for other explanations.

Brain networks: mentalising, attention and self-awareness

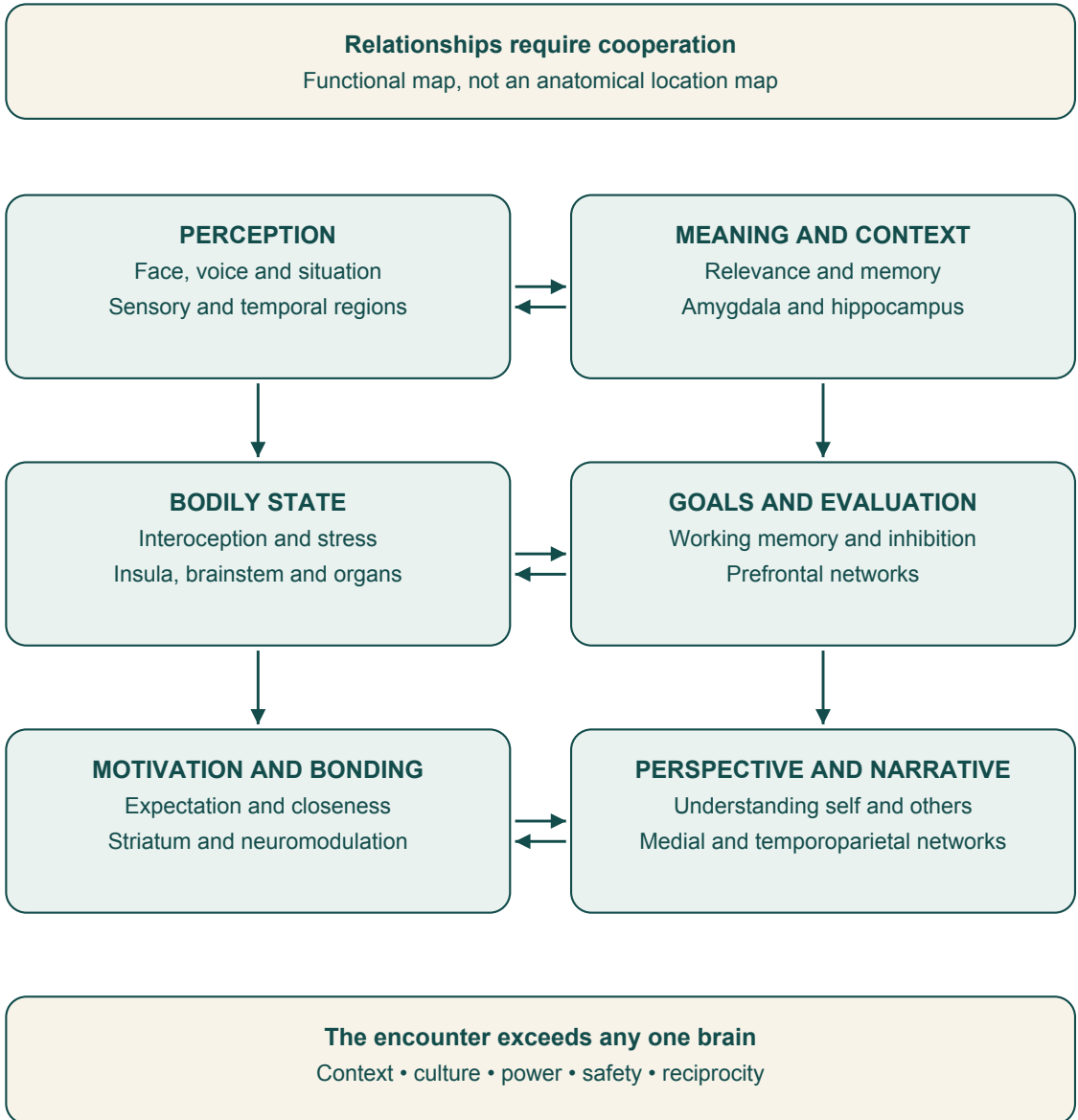
Many brain functions are now described at the network level. The default mode network participates in internally directed processing, autobiographical thinking and various forms of reflection about self and others. Frontoparietal networks support goal-directed control. The salience network participates in noticing meaningful information and allocating attention. Menon's triple network model is an influential framework for psychopathology, not a universal explanation of every relationship problem. [19]

Mentalising means understanding behaviour as potentially arising from thoughts, feelings, wishes and intentions. It requires recognising your own inner world and realising that another person's is not directly visible. Various medial and temporoparietal regions participate in tasks involving reflection on mental states. An area lighting up on a scan, however, does not prove that someone is acting empathically or morally well. Different people may perform the same task in different ways. [17]

Empathy comprises several processes. Sharing another person's emotion differs from taking their perspective; both also differ from acting with care. A practitioner may recognise another person's pain accurately and still need to set boundaries. Conversely, someone who finds faces difficult to read may be faithful and helpful. Relational quality should therefore not be measured by one style of expression or a quick judgement about mirror neurons.

A useful exercise is to consider three possibilities before deciding on an intention. A colleague replies briefly: perhaps they are angry, rushed or uncertain about the question. Then check against reality. This is more than positive thinking. Sometimes the initial unfavourable interpretation turns out to be correct. The aim is to keep interpretations open to testing and distinguish what you saw, what you suspect and what the other person actually says. Such humility keeps contact open without requiring naivety.

A network, not a relationship switch



Educational synthesis accompanying chapters 7-14; anatomical functions are simplified. [2] [15] [17] [18] [19]

Stress, autonomic regulation and the vagus nerve

In response to threat, the sympathetic nervous system can increase bodily readiness. The hypothalamic-pituitary-adrenal axis also influences the stress response through hormones. The hypothalamus signals the pituitary; through ACTH, the adrenal cortex is stimulated to release cortisol. Feedback helps limit the response. These systems are necessary for adaptation. Prolonged demands or inadequate recovery may put functioning and health under pressure. Cortisol is therefore not a hostile substance that needs to be eliminated from the body. [12] [16]

The vagus is the tenth cranial nerve and contains many fibres carrying information from organs to the brainstem, alongside outgoing parasympathetic fibres. Its functions include participation in cardiac and organ regulation. The autonomic nervous system comprises much more than this nerve. A gentle exhalation, movement or social contact may influence bodily state, but relaxation does not establish that a particular vagal branch has been measured or that trauma has been resolved.

In polyvagal theory, Stephen Porges connects autonomic regulation, social signals and safety. This has influenced much clinical language. Important anatomical, evolutionary and measurement-related aspects of the theory, however, have received substantial criticism, including from Paul Grossman. In 2026, Grossman and colleagues published a collective critique, followed by a response from Porges. Core physiological and evolutionary claims are therefore strongly contested. Heart rate variability does not directly diagnose social safety or someone's overall vagal state. [26] [27] [38] [39]

In practice, people can breathe calmly and comfortably without forcing or holding their breath for long periods. Stop the exercise if it becomes unpleasant. Sleep, workable boundaries, adequate nutrition and ending actual threats are equally important. An exercise is not an instruction to remain in a harmful situation. Success is judged by greater choice and recovery, not by attaining a supposed ideal state of the nervous system.

Reward, motivation and human bonding

Human closeness can be rewarding. Dopaminergic systems participate in learning about outcomes, motivation and assigning significance to anticipated reward. The striatum is an important hub in this process. Dopamine is not a simple happiness chemical. Pursuit, uncertainty and learned expectations may also be involved in these systems. This helps explain why someone may continue seeking approval that is given only occasionally.

Oxytocin also participates in bonding, alongside its roles around birth and lactation. Feldman describes human attachment in terms of the relationship between neurobiology, behaviour and relational synchrony. Her work supports a broad approach in which care, motivation and mutual responsiveness are investigated together. [20] This does not justify treating oxytocin as a universal means of producing trust. Bartz and colleagues emphasise that its social effects depend on person and context and are not consistently strong. [21]

For parenting and formation, this means that the quality of closeness matters. A welcome embrace differs from imposed touch. A concrete, trustworthy compliment differs from admiration intended to create dependence. Positive feelings do not prove that a relationship is safe. People may feel strongly drawn to an unpredictable relationship precisely because hope and disappointment alternate.

Practising joy can begin simply with genuine interest in something that matters to another person. You communicate that their presence is welcome and that they do not constantly have to perform. This is relationally richer than repeating positive words without attention. Here, too, a safe relationship consists of more than pleasant feelings. It can tolerate sadness, correction and difference. The reward is not constant excitement, but the growth of a reliable space in which someone can allow themselves to be known.

Development, sensitive periods and neuroplasticity

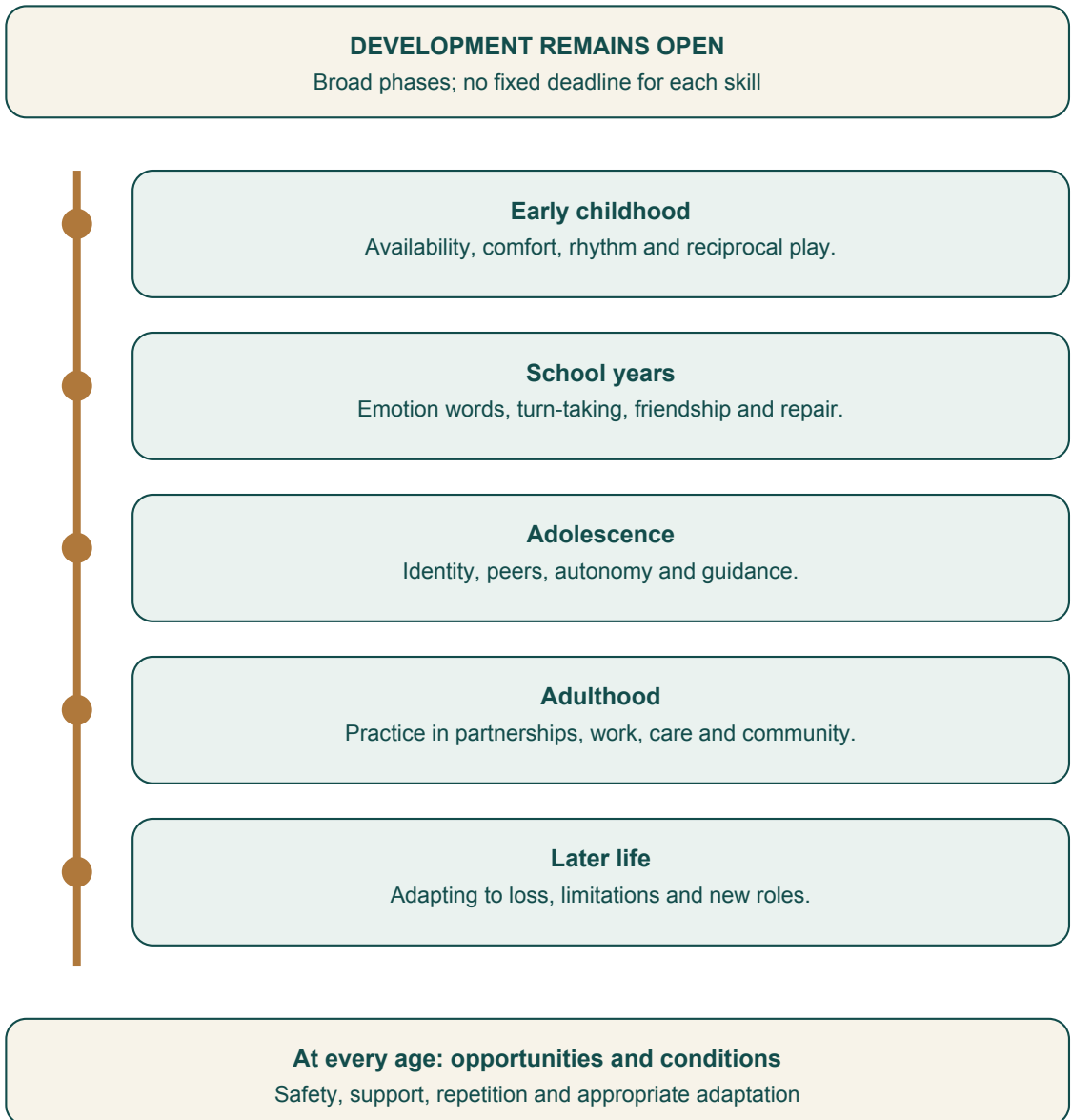
The brain develops through an interaction between biological dispositions, physical maturation and experience. Some capacities are especially sensitive to particular kinds of input during certain life stages. This makes early care important, but it does not mean that every opportunity closes after the first years of life. Sensitive periods vary by function and do not coincide with one universal age limit. Adult brains continue learning, although conditions and possibilities change. [13] [25]

During adolescence, social motivation, sensitivity to peers and regulatory capacities change. The NIMH emphasises both development and resilience in the teenage brain. The frequently repeated claim that the brain is finished on the twenty-fifth birthday makes a gradual process too absolute. Different measures and systems follow different trajectories. Young people are not lesser conversation partners who can only bear real responsibility later. They do, however, need appropriate support, opportunities to learn and protection. [28]

In adults, relational change may occur when new experiences are sufficiently repeated and meaningful. Someone accustomed to withdrawing may discover that a calm request for time is respected. The new experience need not erase the old history. It can make an additional expectation available. When fatigue or arousal increases, the old pattern may become stronger again. A setback provides information about circumstances and demands; it is not automatic proof that earlier growth was inauthentic.

Hope and realism therefore belong together. A course can offer opportunities, but it cannot guarantee biological rejuvenation or complete reprogramming. Some people need long-term support, for example following brain injury or with severe developmental difficulties. Appropriate adaptation does not signify failed training. An aid, predictable routine or clear communication can also increase relational freedom. The question remains what helps this person, in these circumstances, live well and safely with others.

Development without a finishing line



A broad life-course overview, not a normative chart of deadlines. The possibilities described differ by person and situation. [4] [13] [25] [28]

Memory, habits, sleep and generalisation

There is a distinction between consciously describing what you know and being able to perform a skill. Earlier experiences can also influence responses without someone having a coherent account of them at that moment. These differences are often discussed using the terms explicit and implicit memory. They are not entirely separate worlds. Words, feelings, actions and context may participate in the same experience. A new explanation can change behaviour; a new experience may later become easier to express in words. [12]

Skills training requires generalisation. Someone who listens well in a calm group may still become stuck at home when the topic is emotionally charged. An exercise is therefore gradually repeated under different conditions. Begin with a neutral topic, then a small disagreement, and only later a more difficult conversation if it is safe. An unsuccessful attempt does not have to be repeated with ever greater intensity. Sometimes the step was too large or the situation unsuitable.

Sleep supports memory processes. Rasch and Born describe, among other things, the roles of reactivation and consolidation during sleep. This does not prove that one night permanently establishes a relational experience. It does support practical attention to rest during learning. A programme that systematically exhausts participants may undermine its own learning objectives. Sleep deprivation is also an important alternative explanation when someone responds with less patience or attention. [22]

A useful practice cycle includes preparation, action, feedback and repetition. Choose a small behaviour: summarise a request before answering. Agree when to practise. Afterwards, ask what the other person actually noticed. Record what helped and what did not. Allow recovery and try again. The outcome is not only that the behaviour happens more often, but that it occurs at appropriate moments. A rehearsed summary that does not truly hear the other person is not yet a relational skill.

Co-regulation, synchrony and the other person's freedom

Co-regulation means that people help influence one another's state. A baby is supported by a caregiver's rhythm and availability. Adults may experience calm through a trustworthy voice, a clear explanation or simply being together.

Synchrony describes coordination in time, for example in turn-taking, movement or physiological patterns. It does not mean that two people constantly feel the same thing or that maximum similarity is always better. Difference and independence also belong in a good relationship. [20]

Coan and colleagues studied threat responses in sixteen married women while, among other conditions, they held their husband's hand. The research provided evidence that a trusted partner's proximity can influence the neural response to threat. This was a small laboratory study in a specific group. It does not justify a general rule that touch always helps, or that every brain functions inadequately without a partner. [30]

The practical lesson is to discuss support. Does someone want conversation, silence, company or distance? A helper cannot elevate their own preference into the norm. Eye contact, prayer and touch also require freedom. A practitioner who declares that another person must first relax to be credible turns regulation into an instrument of power. Sometimes distress is an appropriate response to what is actually happening.

Co-regulation is not an unlimited obligation for a partner, parent or pastor either. People need boundaries and several sources of support. A healthy relationship can say: I want to stay with you, but I cannot carry this alone tonight. Professional support may then be part of relational care. Self-regulation and seeking help are not rivals. As people develop more options, they can choose more deliberately when to act themselves and when they need someone else.

Rereading the 2017 article critically

The original intuition - that relational growth requires more than explanation - remains valuable. The following physiological or therapeutic claims need greater precision. [1]

Original explanation	More careful wording	Practical implication
Slow left, fast relational right	Automatic and conscious processes are distributed and interact. [14]	Combine conversation and experience; do not devalue language.
Five versus six hertz	Oscillation frequency is not the general speed of identity or consciousness.	Do not use these figures as evidence for a formation method.
White-matter habits after one month, much faster	Learning may involve several biological changes; timing varies. [13]	Do not promise a fixed timetable or two-hundredfold acceleration.
Prefrontal cortex as identity centre	Identity and social functioning require distributed systems. [2] [17]	Do not diagnose or judge character from one region.
Relational circuits on or off	A useful metaphor for a stance towards contact, not a measured switch.	Explore curiosity, demands, context and safety.
Vagus training prevents serious violence	This broad prevention claim is not established here; core PVT claims are strongly contested. [27] [38] [39]	Relaxation does not replace protection and responsibility.
Everyone lacks the same nineteen skills	Nineteen is one tradition's educational classification. [9]	Choose person-specific goals and assess effects in behaviour.
Experienced closeness proves God is speaking	Experience may be meaningful but needs theological and practical discernment.	No imposed images, memories or messages.

Where development becomes stuck: threat and deprivation

Developmental difficulties rarely have a single cause. Biological dispositions, physical health, temperament, family demands, poverty, discrimination and experiences outside the family may all exert influence. It is too simple to attribute every later difficulty to an inadequate mother. Loving caregivers can also become overwhelmed or have a child who needs specialist support. Sound analysis examines circumstances and protective factors alongside risks.

In their model, McLaughlin, Sheridan and Lambert distinguish threat from deprivation. Threat concerns experiences involving harm or danger. Deprivation concerns the absence of expected developmental input. This distinction helps generate more focused questions than a single total score for all adverse experiences. A systematic review by McLaughlin, Weissman and Bitrán describes differences in group patterns and stresses the need for more precise, longer-term research. A brain scan does not reveal an individual's upbringing. [23] [24]

A child exposed to considerable threat may become particularly attentive to signs of conflict. A child with little reciprocal language and play may miss other opportunities to practise. In everyday life, these forms often overlap. A meaningful response includes protection, concrete developmental opportunities and support for caregivers. Training only the child while the danger continues places responsibility in the wrong place.

Positive experience may also be lacking without one dramatic incident. Limited shared attention, little repair after arguments or constantly having to manage a parent's emotions may burden development. Nevertheless, a practitioner must not infer from one symptom that such a history must exist. Clients tell their own stories. Practitioners organise possibilities and explore together what is plausible. This combines acknowledgement of what was missing with respect for uncertainty.

Trauma, shame, dissociation and protective patterns

Trauma may refer both to exposure to deeply distressing events and to their consequences. Not everyone who experiences something terrible develops post-traumatic stress disorder. Conversely, someone may suffer severely while barely being able to put their story into words. Assessment requires attention to re-experiencing, avoidance, a sense of threat, functioning and other symptoms. Relationship difficulties alone are insufficient for a diagnosis. [34]

Protective patterns may once have been understandable. Becoming silent may have reduced conflict; constantly caring for others may have prevented rejection. Later, the same patterns may constrain freedom and reciprocity. This perspective makes behaviour understandable without glorifying it. When a protective response harms others, both understanding and change are needed. The origin of behaviour does not justify everything that follows from it.

Shame often adds the belief that not only was an action wrong, but the entire self is unwanted. A relational approach makes room for a distinction: you can be held accountable for behaviour while your dignity remains. Dissociative experiences, such as feeling detached from yourself or your surroundings, also require care. They may have different backgrounds. A pastoral term such as inner child, or a label used in a course, is not a medical explanation.

In support work, the pace should be determined together. Participation in prayer, group discussion or bodily exercises must not become a test of trust. Nobody has to recount a traumatic history in a group in order to belong. Severe or persistent symptoms require appropriate professional assessment. A reliable network can support recovery through predictability and practical care. It should not attempt to replace specialist treatment with increasingly intense emotional exercises or increasingly confident explanations of hidden causes.

Life stages, neurodiversity and communication styles

Relational development does not follow the same course for everyone. Young children learn different forms of reciprocity from adolescents or older adults. Puberty, parenthood, illness, bereavement and retirement bring new tasks and vulnerabilities. Physical changes may also affect contact. Hearing loss, for example, may appear to be disinterest when the person is actually missing parts of the conversation. Exploring such possibilities belongs within relational care.

Autism and ADHD may involve different patterns of attention, sensory processing, impulse regulation and communication. This does not mean that someone is less capable of love or less suited to spiritual growth. A norm demanding constant eye contact, readily available emotion words or spontaneous physical contact confuses one communication style with human connection. Ask what helps: a written summary, clear turn-taking, less background noise or time to answer later.

Culture and language matter too. Direct speech may convey honesty in one setting and seem impolite in another. One relational skill is discussing these differences without placing every custom beyond criticism. Respect for culture does not justify coercion or humiliation. It does, however, prevent a course from automatically treating the trainer's style as the measure of maturity.

A sudden change in personality, memory or behaviour should also prompt consideration of a medical cause. Brain injury, neurological illness, substances or medication may be relevant. A general practitioner or another qualified clinician can arrange appropriate assessment. A spiritual explanation must not block that route. The same applies to informal caregivers: they need information and support, not guilt because relational exercises cannot solve everything. Maturity sometimes becomes evident precisely in accepting lasting limitations and seeking a workable form of closeness together.

Joy, attention and an appreciative presence

One particularly important skill is communicating that another person is welcome. This may happen through a greeting, a specific question or attention to a small detail they mentioned. Joy here does not mean constant cheerfulness. It means experiencing that your presence matters and that you are seen as more than a problem or a performance. Life Model teaching rightly gives this theme considerable attention. Its value does not depend on claiming that joy activates one particular brain circuit. [9] [11]

Appreciation becomes more credible when it is specific. You can acknowledge that someone answered honestly despite tension or listened carefully to a child. General admiration may feel pleasant, but it can also create pressure to maintain an idealised image. Relational joy leaves room for awkwardness and difference. It does not demand gratitude in return or use compliments to make criticism impossible.

A small exercise involves two minutes of attention. One person describes something meaningful. The other asks one question and summarises what they heard. They then ask whether the summary is accurate. Eye contact is not compulsory, and nobody is required to produce an intense emotion. The exercise may also concern something difficult in which a small moment of support occurred. In this way, joy need not displace sadness.

From a Christian perspective, gratitude can be a response to goodness received. It must not replace lament. The Psalms contain both. A church that accepts only positive stories teaches members to hide parts of their lives. Precisely a community that can tolerate both joy and sadness may help sincere gratitude grow. The aim is greater reality in the relationship, not a more attractive exterior.

Recognising, tolerating and regulating feelings appropriately

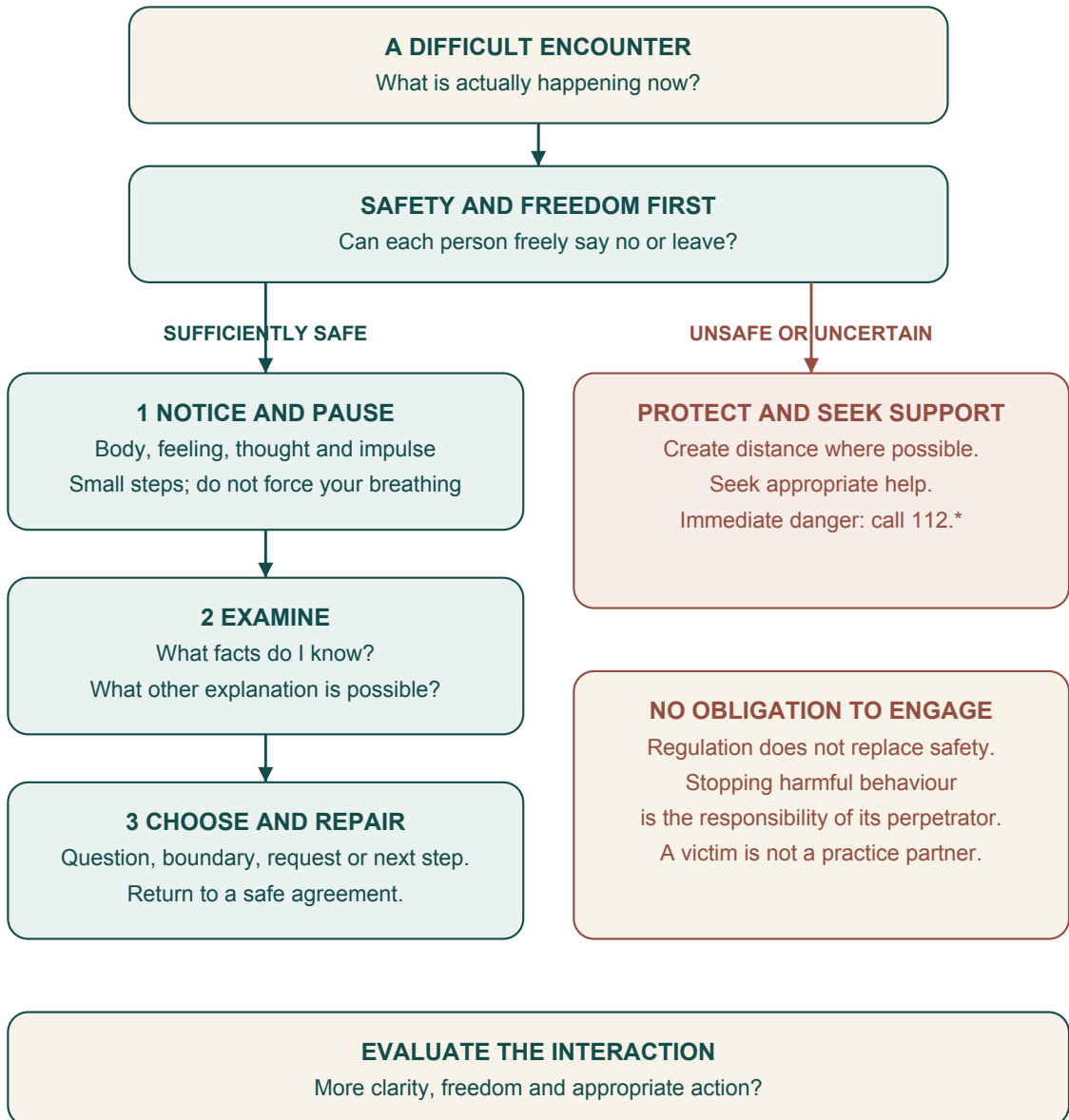
Emotion regulation begins with noticing what is happening. People may confuse anger with rejection, anxiety with guilt or sadness with fatigue. It helps to distinguish bodily signals, emotion words and urges to act. I notice pressure in my chest, I suspect anxiety and I want to end the conversation. This creates more room for choice than concluding that the other person is destroying me. It may still turn out that their behaviour is genuinely harmful.

Research on cognitive emotion regulation shows that attention and reappraisal can influence emotional processing. Ochsner and Gross describe, among other things, changing the meaning someone assigns to a situation. Reappraisal does not require interpreting everything favourably. A realistic interpretation may also be that a boundary has been crossed and distance is needed. Suppression is not always wrong either: temporarily refraining from action can be wise, followed by processing at a more suitable time. [29]

A useful sequence is to stop, name, examine and choose. Pause briefly if possible. Give the feeling a provisional name. Examine the facts you know and the assumptions you are making. Then choose one appropriate action. This may be a question, a request for a break or seeking help. The sequence is an educational aid, not a universal neurological protocol.

Tolerating a feeling means allowing it to be present without immediately resolving it. A sad person does not have to return instantly to a visibly cheerful state. When dysregulation is severe, a professional can help adapt the approach. Growth becomes evident not only in reduced arousal, but also in acting more appropriately while arousal remains. Self-control as a Christian virtue therefore does not mean emotional numbness; it makes room for a response that remains faithful to love and truth.

From arousal to a responsible next step



A practice model developed for ordinary conversations. Not a diagnosis or treatment protocol. Safety determines whether joint practice is appropriate. *112 is the European emergency number used in the original edition; elsewhere use your local emergency number.

Empathy and mentalising: understanding without mind-reading

Empathy helps us take another person's experience seriously. Mentalising adds the exploration of possible intentions and beliefs. Both require a willingness to be corrected. You can be moved by someone's sadness and still misunderstand what they need. A good question may therefore express more love than a quickly offered explanation of their inner world.

Two common distortions occur. In the first, everything becomes certain: I know exactly why you are doing this. In the second, the other person's inner world becomes irrelevant: only visible behaviour counts; feelings are an excuse. A relational attitude holds both concerns together. Behaviour has consequences and sometimes must stop; at the same time, exploring what the person experiences may help. Understanding does not require agreement or make an unsafe action acceptable.

Mentalising becomes more difficult when emotions escalate. Practitioners can model the skill themselves: I notice that I am filling in what you mean, and I would like to ask first. Mentalization-based treatment systematically explores one's own and other people's mental states. Research by Bateman and Fonagy among people with borderline personality disorder showed improvement in both treatment conditions studied, with a more favourable course on several outcomes for MBT. This is focused treatment knowledge, not a guarantee for every relationship problem. [33]

In a Christian community, this attitude can constrain gossip and spiritual overconfidence. An impression about someone's motives is not necessarily revelation. It is better to ask directly and respectfully than to pronounce a confident diagnosis about someone who is absent. Love that seeks truth can tolerate discovering that its first interpretation was wrong. At the same time, there remains room to set a boundary on the basis of clear facts, even when the other person's intentions are not fully known.

Boundaries, consent and relational courage

A boundary clarifies where someone's responsibility, availability or agreement ends. Relational development therefore includes more than closeness: it also involves tolerating a no. A person can sound very friendly while continuing to press until the other person gives in. The test is then not tone of voice, but the other's actual freedom. Consent arising from fear or dependence requires particular care.

A boundary can be concrete and brief. I am willing to discuss this, but I will not remain in a conversation involving verbal abuse. Appropriate action must then accompany the statement. Someone who merely repeats a boundary without support or consequences may become increasingly exhausted. Sometimes the necessary step is a conversation with a third party, a change in arrangements or distance. The right choice depends on risk, dependence and available options.

Power makes this subject especially important. A child, client, employee or church member does not occupy the same position as someone who determines care, income or spiritual approval. A leader cannot simply state that everyone is free to object. Safe routes must also exist that do not depend on the leader's personal goodwill. Transparency, independent accountability and taking complaints seriously are relational conditions.

From an evangelical perspective, servant authority fits the example Jesus gives in Mark 10:42-45. Service does not mean the absence of leadership; it means leading in a way that does not treat another person as a possession. For a wounded believer, a clear boundary may be a step of faith. They do not have to remain constantly available to prove love. For the person who crossed the boundary, accepting it may be a first tangible sign of repentance. Relational courage sometimes requires closeness and sometimes the protection of distance.

Conflict and repair: acknowledging guilt without governing through shame

Conflicts arise when needs, interests, expectations or values collide. They are not all signs of immaturity. People may act carefully and still disagree. Problems arise when difference leads to humiliation, threats, control or a repeated refusal to take responsibility. A learning process must therefore distinguish ordinary friction from a pattern requiring protection.

When there is sufficient safety, a repair conversation beginning with concrete behaviour can help. I interrupted you and raised my voice. Space then follows for the effect on the other person. An apology is weakened when immediately followed by an explanation of why the other person was the real cause. Personal history may be discussed later, but it does not cancel one's own contribution. Repair also requires appropriate follow-through: making good damage, keeping agreements and seeking help where necessary.

Forgiveness, reconciliation and trust must remain distinct. Forgiveness can be a Christian path towards relinquishing personal revenge. Reconciliation concerns a relationship and requires participation and truth. Trust rests partly on repeated reliability and cannot be demanded by appealing to grace. The Bible connects forgiveness with honesty and the fruit of repentance, not with denying injustice. Ephesians 4:25-32 and Luke 19:1-10 provide starting points for this understanding.

A useful repair question asks what the other person needs in order to move forward, without forcing a particular answer. Sometimes it is another conversation. Sometimes it is a period without contact. A victim does not have to be a practice partner for the person who harmed them. Relational skills become credible when they also include bearing the consequences of one's own behaviour. A good conversation is valuable, but it cannot replace demonstrable change.

Which skills deserve priority?

An educational selection developed for this book. The order is not a universal developmental ladder, and the columns are not a diagnostic test.

Skill	Observable behaviour	Common pitfall
Being present	Pay attention and ask a concrete question.	Imposed eye-contact norms or theatrical interest.
Recognising feelings	Distinguish body, feeling, thought and impulse.	Treating every sensation as truth.
Regulating	Take a workable pause and return to agreements.	Demanding calm while the situation remains unsafe.
Mentalising	Keep an interpretation provisional and check it.	Mind-reading or diagnosing one another.
Respecting boundaries	Accept a no without punishment or pressure.	Demanding closeness or forgiveness as a right.
Repairing	Name your behaviour, its effect and appropriate follow-through.	Beautiful apologies without behavioural change.
Sharing joy	Communicate genuine welcome and appreciation.	Prohibiting sadness through compulsory gratitude.
Seeking support	Acknowledge your capacities and limits.	Making one person the only source of help.
Bearing hardship	Hold to values while allowing help.	Confusing perseverance with enduring abuse.

Therapeutic assessment: from an isolated skill to a coherent understanding

Before choosing treatment, a shared formulation of the problem is needed. When do difficulties occur, how long have they been present and what are their consequences? What strengths and sources of support are available? Are violence, depression, anxiety, addiction, trauma, neurological change or developmental needs involved? The same complaint may have different backgrounds. Someone who withdraws may be overstimulated, frightened, physically ill or genuinely threatened.

A treatment plan connects the request for help with concrete goals. Fewer arguments is a start, but not yet precise enough. A better goal might be to interrupt an escalating conversation in time and resume it safely at an agreed moment. For someone else, the goal is reducing trauma symptoms or restoring functioning. With consent, close others may contribute information, but the client should know who receives what information.

The working relationship deserves attention. A meta-analysis by Flückiger and colleagues found an association between therapeutic alliance and treatment outcome. This does not prove that a warm relationship by itself cures every disorder. Good care combines collaboration with expertise, an appropriate approach and evaluation. A well-liked client may still receive ineffective treatment. Conversely, necessary treatment may temporarily be difficult or confronting. [31]

Pastoral support can exist alongside treatment. Clarify who is responsible for diagnosis, who provides spiritual support and how consultation takes place with consent. A psychologist does not have to answer every theological question; a pastor does not have to deliver trauma treatment. Faith may be an important source of meaning and support, but must not become a condition for receiving appropriate care. Evaluation therefore includes symptoms, daily functioning, safety and the client's judgement, not merely the practitioner's enthusiasm.

CBT, DBT and MBT: different paths towards relational action

Cognitive behavioural therapy examines the interaction between interpretations, feelings and behaviour. Relational problems may involve hostile assumptions, avoidance or insufficient opportunities to practise. Treatment is adapted to a defined problem; CBT is not one fixed conversation script. The stereotype that it works exclusively through rational arguments fails to recognise behavioural experiments, exposure and experiential learning.

Dialectical behaviour therapy combines acceptance, behavioural analysis and skills training, among other elements. Attention, emotion regulation, distress tolerance and interpersonal effectiveness have an explicit place. In a randomised component study by Linehan and colleagues involving 99 women with borderline personality disorder and high suicide risk, the conditions studied showed improvement on several outcomes. Conditions including skills training had advantages on some outcomes. This research concerns a carefully organised treatment setting, not the effectiveness of an isolated course for everyone. [32]

MBT focuses on mentalising, especially when relational tension undermines that capacity. The practitioner remains curious about what happens in the encounter and avoids taking an all-knowing position. Bateman and Fonagy's study compared MBT with structured clinical management. The fact that both conditions showed improvement matters: structure, continuity and active care have significance even when different models are used. [33]

For a Christian learning group, application lies in carefully chosen ordinary exercises, such as formulating a request or checking an assumption. Using a few terms does not reproduce an entire treatment programme. Severe dysregulation, recurring self-harm or major functional limitations require professional care. Choices are made together on the basis of the request for help, available expertise and preferences. An appealing brain explanation should not outweigh appropriate clinical evidence.

Trauma treatment: processing with expertise and choice

Trauma-focused treatments may be appropriate for post-traumatic stress disorder. NICE includes trauma-focused cognitive behavioural therapy and, for defined situations, EMDR. The guideline calls for trained practitioners, an evidence-informed approach and attention to symptoms and functioning. The precise choice and timing depend on age, symptom profile, circumstances and preference. A general essay cannot replace that assessment. [34]

Relational support remains important, but learning to relax alone is often insufficient to treat a persistent trauma response. Conversely, there is no need to assume that every client must spend years mastering all basic skills before treatment can begin. Preparation and support should match what is needed. A practitioner can consider safety, dissociation, accompanying problems and daily life without unnecessarily postponing trauma-focused work.

An important boundary concerns memories. Therapy is not a search for the hidden event expected by the practitioner. Particularly in imagery exercises, prayer and powerful emotional experiences, the distinction between imagination, memory and interpretation must remain clear. Clients do not have to produce certainty they do not possess. A subjectively meaningful image can be discussed without treating it as evidence of a historical event.

Pastoral support may include availability, practical help, prayer together when requested and preventing isolation. The church can also help ensure that a perpetrator no longer has access or power. Protection and justice are not peripheral to emotional processing. People receiving treatment do not have to keep defending their faith or prove recovery through a testimony. A hopeful Christian approach acknowledges that the journey can be long and that spiritual dignity does not depend on how quickly symptoms diminish.

Parenting, partnerships and learning in daily life

Relational skills often grow best in the environment where they are needed. With young children, guidance may therefore focus on the caregiver and interaction rather than only on the child. In Bernard and colleagues' study of Attachment and Biobehavioral Catch-up, parents in an at-risk group received a brief, targeted intervention. More favourable attachment outcomes were found among 120 children than in the control condition. The ages and context studied limit the conclusions; the research does not guarantee outcomes for every family. [35]

The practical significance lies in concrete care: responding to distress, following the child's initiative appropriately and reducing frightening behaviour. Within skilled guidance, video feedback can help reveal what is actually happening. A parent may mainly notice failures and discover through a short clip that useful moments of attunement also occur. Feedback must be offered carefully, so that watching does not become a humiliating assessment.

Similar precision may help in partnerships. Choose one recurring moment, such as arriving home or discussing arrangements. Explore who expects what, what demands are present and how a request becomes audible. Not every conflict requires a deep account of childhood. Sometimes a clear division of responsibilities is missing or the burden is simply too great. Relational thinking must also take material circumstances seriously.

Where coercive control or violence is present, practising together is not automatically safe. A joint conversation may produce information later used against a partner. Separate expert assessment is then needed. In safe situations, repeating small reliable actions can be especially helpful: returning to a conversation on time, keeping an agreement and acknowledging a mistake. The everyday is not an inferior form of change. It is where a new relational expectation can become credible.

Immanuel, prayer and experiential guidance

Karl Lehman's Immanuel Approach focuses on experiencing a relationship with Jesus and bringing it into difficult experiences. For some Christians, this language resonates with their prayer life. The approach's own website and publications describe its methods and experiences from within the model. Such sources help explain what developers mean; by themselves, they do not provide independent support for broad clinical effectiveness. The sources consulted for this essay did not establish a sufficiently robust basis for such claims. [10]

A pastoral exercise may begin with a genuinely experienced moment of gratitude and a freely expressed prayer. Participants do not have to see an image of Jesus, hear a voice or experience a particular bodily sensation. They may also say that nothing is happening. That answer is not resistance to God or proof that a relational circuit is defective. It protects freedom in faith and the freedom of the person.

Practitioners must be careful about suggestion. Questions such as what might Jesus want to say to you now can be used for reflection, but the answers remain human interpretations requiring examination. They must not acquire certainty concerning hidden memories, medical causes or the guilt of third parties. Hearing voices, severe dissociation or other serious symptoms require appropriate professional assessment; practitioners should not diagnose on the basis of one experience.

Prayer and treatment can coexist when goals, professional responsibilities and consent are clear. A Christian therapist discusses the client's preferences and does not impose personal practices. A pastor does not promise healing on the basis of a method. Christian hope is greater than a procedure: it rests in God's faithfulness. A method may be helpful, but it must not become a gateway behind which God is supposedly accessible only to those who perform the exercise correctly.

Comparing treatment and support

A selection of possibilities, not a ranking or personal treatment advice. Indication, preference, practitioner training and evaluation are decisive.

Approach	Possible application	Evidence and limits
Cognitive behavioural therapy	Interpretations, avoidance and behavioural experiments.	Includes different protocols; select for the problem. More than rational discussion.
DBT	Emotion regulation, distress tolerance and interpersonal effectiveness.	Studied in specific clinical groups; the full care context matters. [32]
MBT	Mentalising during intense relational tension.	RCT in borderline personality disorder; no universal guarantee. [33]
Trauma-focused CBT and EMDR	PTSD and defined trauma-related symptoms.	Guideline recommendations with specific indications and trained practitioners. [34]
ABC parent-child intervention	Sensitive care for young children in an at-risk context.	Randomised research; age and studied context limit transfer. [35]
Relational practice group	Ordinary skills and mutual feedback.	Formation; not automatically treatment for a disorder.
Immanuel and pastoral exercises	Voluntary reflection on faith and prayer.	Self-description and experiences are not robust independent clinical evidence. [10]
Church support	Practical help, connection and spiritual care.	Complementary; not a replacement for assessment or protection.

An evangelical view of the person: body, dignity and community

An evangelical Christian perspective begins with God as Creator and human beings as bearers of his image. Genesis 1:26-28 does not make human dignity depend on intelligence, health or social skill. A person with severe disabilities remains fully human. Neuroscience can describe how capacities are supported, but it does not provide the foundation for the right to be loved, protected and heard.

The Bible speaks in various ways about body, heart, soul, spirit and mind. These words do not simply coincide with modern anatomical categories. The biblical heart, for example, is not the name of the prefrontal cortex. Nor can we locate the Holy Spirit in a brain region. Reducing theological language to biology loses its distinctive meaning; dismissing bodily processes fails to do justice to people who eat, sleep, feel pain and need closeness.

The Fall makes clear that relationships can be damaged by self-centredness, fear, falsehood and abuse of power. However, not every symptom is a personal sin. A trauma response may be involuntary; a neurological condition does not prove spiritual deficiency. At the same time, people remain accountable for choices to the extent that they can make them. Good pastoral care distinguishes guilt, vulnerability, limitation and harm suffered, rather than putting everything under one explanation.

In Jesus, love takes concrete shape: attention to people, truthfulness, boundaries against abuse and willingness to serve. The Gospels also show sadness, indignation, prayer and a need for solitude. We cannot reconstruct a neurological profile of Jesus from these accounts. We can, however, explore the attitude that directs his life. Christian relational growth is therefore more than smooth social functioning. It calls for love that seeks another person's good even when this brings no admiration.

Being born again: a new relationship with God

In John 3, Jesus speaks with Nicodemus about being born of the Spirit. Titus 3:3-7 connects renewal with God's mercy rather than human merit. Within evangelical Christian faith, being born again, or regeneration, refers to God's renewing work through which a person is brought to Christ in faith and shares in new life. Traditions differ on the precise relationship between conversion, faith, baptism and regeneration. This essay adopts a broad evangelical position without concealing those differences.

What changes relationally? At the centre is a new relationship with God: reconciliation, receiving forgiveness and learning to live as an adopted child. Romans 8:14-17 speaks of the Spirit and adoption; Ephesians 2:1-10 of grace and a new life directed towards good works. These are theological statements. They describe neither a measured brain scan nor the sudden disappearance of all old memories.

Regeneration may profoundly affect desires, self-understanding and behaviour. Someone may receive courage to acknowledge guilt, seek help or break a harmful habit. Another person may initially notice mainly a change in trust, while their body reacts just as strongly to criticism. The presence of that response does not make their faith inauthentic. Nor does an intense conversion experience prove that every relational pattern is now healthy. Fruit must become visible in life, with room for time and correction.

This distinction protects against two errors. The first expects grace automatically to complete all psychological development. The second reduces conversion to a psychological effect. An evangelical perspective can reject both: God's work has its own spiritual significance and is lived by an embodied person with a history. Prayer, discipleship, practice and treatment may therefore be needed alongside one another, without any one of them replacing the whole reality.

Sanctification: learning to inhabit a new identity

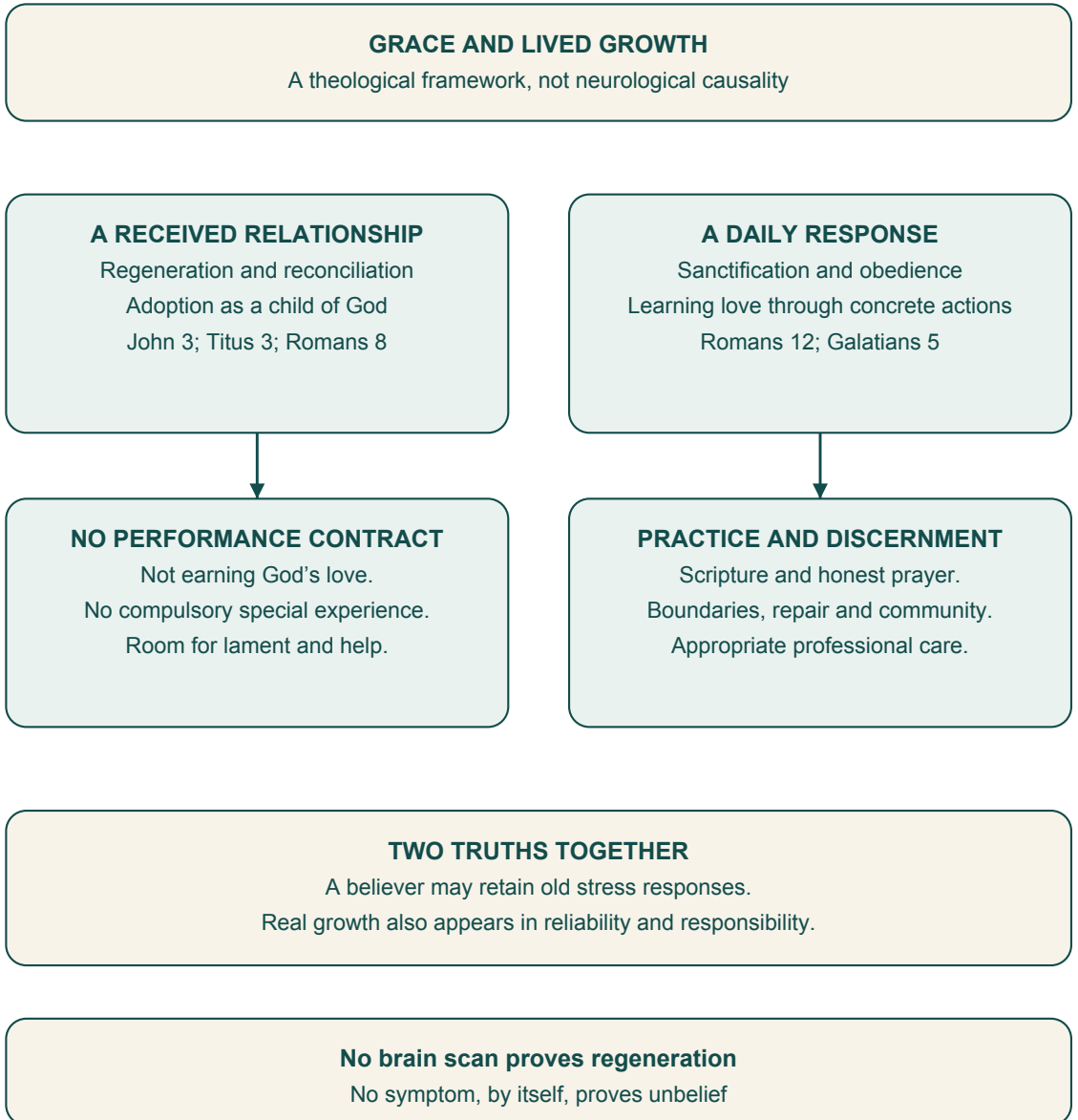
Sanctification is ongoing growth in a life consistent with Christ. Romans 12:1-2 speaks of dedication and renewal of the mind; Galatians 5:13-26 of freedom, love and the fruit of the Spirit. A new identity therefore calls for a lived response. This is not an attempt to earn the grace originally received. It means learning to act from what has been given, even where old habits remain persistent.

The language of adoption helps constrain shame. Believers do not first have to become relationally flawless to approach God. Precisely from this received position, they can tolerate truth about their behaviour. Grace is misused, however, when it makes correction impossible. Someone who claims that their identity in Christ obliges others to accept harmful behaviour confuses forgiveness with exemption from accountability.

Dallas Willard emphasised spiritual formation of the whole person, including bodily and social life. Habits and disciplines acquire meaning within following Jesus. His contribution helps avoid a division between merely believing and merely practising. It is a theological and philosophical vision of formation, not independent evidence for the neurological effects of a particular training programme. [36]

In practice, someone can connect one Christian value with one observable behaviour. Patience becomes, for example: I let the other person finish and then ask whether I understood correctly. Truthfulness becomes: I acknowledge my part without making a mitigating story a precondition. Love becomes: I respect an expressed boundary. Prayer, reflection and community then support the practice. A setback calls for confession and appropriate follow-through, not simply a renewed intention. In this way, sanctification remains both dependent on God's grace and concrete in everyday life.

New life and ongoing formation



An evangelical theological framework. It does not suggest that regeneration can be established by neurological measurement. See chapters 33-38 and the Bible reading guide.

Images of God, attachment and spiritual alienation

Someone may intellectually confess that God is good while emotionally expecting mainly rejection from him. Earlier experiences with parents, leaders and communities may influence how words about God are received. This is not a complete scheme in which a person's image of a father directly determines their image of God. People have multiple experiences and can also receive corrective perspectives. A pastor should therefore ask how someone experiences God rather than deducing the answer from childhood.

Attachment language may help here, but God is not simply a larger human caregiver. In Christian faith, the relationship with God is also shaped by revelation, sin, reconciliation and hope. A safe human relationship can support understanding of love, but does not replace the gospel. Conversely, correct doctrine does not automatically calm emotional life. Understanding and trust can develop at different rates.

Spiritual alienation has varied causes. Sometimes there is avoidance of guilt or a pattern requiring repentance. Sometimes there is bereavement, depressive symptoms, exhaustion, abuse or disappointment in a community. A conscientious believer may also become caught in recurring anxiety about whether their faith is genuine or they have confessed enough. Repeatedly seeking reassurance may then become part of the problem; expert help may be needed.

A careful path does not immediately demand greater intensity. Explore what is actually happening. Which biblical words are heard as threats? Which human voice is being confused with God's voice? What small form of prayer is possible now? The Psalms teach that lament and waiting can exist within the relationship with God. The absence of a warm feeling is not conclusive evidence of God's absence. Recognising this can create room for honest contact without denying pain.

Renewing the relationship with God: Scripture, prayer and obedience

Asking how the relationship with God can improve first requires a distinction. According to the gospel, a better routine does not buy God's love. Our interaction with God can, however, become more honest, attentive and obedient. John 15:1-17 connects abiding in Christ with his words, love and fruit. The goal is not a continuously extraordinary experience, but a life increasingly responsive to his faithfulness.

A simple daily practice can start small. Take a short biblical passage in context. Ask what it says about God, people and a concrete next step. Then express honestly what you understand and what you find difficult. Acknowledge where you need to take responsibility and receive the invitation to grace. Finish with one manageable action, such as calling someone, repairing a mistake or allowing necessary rest. The duration of the exercise is not a measure of spiritual worth.

Lament also belongs in prayer. Psalm 13 and Psalm 42 show that questions, longing and hope can coexist. Gratitude may find a place later or alongside them, but need not drown out sadness. Silence can help us refrain from responding immediately to every impulse. Someone who becomes more unsettled through silence can pray aloud, walk or read a psalm. A discipline should serve the person and need not take the same form for everyone.

The relationship with God is also practised through obedience and community. Prayer for love takes shape in listening; prayer for forgiveness in honest confession and repair where possible. Nevertheless, the distinction between God and human leaders remains important. Contact with a particular pastor is not a condition for access to Christ. Good guidance gives believers greater freedom to read, pray, discern and take responsibility themselves.

Discerning God's guidance without absolutising inner impressions

Evangelical Christians use different language about hearing God's voice. Some emphasise Scripture and wise decision-making; others also speak of impressions, images and particular guidance. One shared foundation is that no human impression is above examination. A thought arising during prayer may be valuable, but may also arise from desire, fear, memory or a guide's words.

Discernment requires more than asking whether something feels peaceful. Does it fit the character and teaching of Christ? Is Scripture being read in context? Which facts are known? Is there room to say no and seek advice? What consequences will the step have for vulnerable people? An impression that pressures someone into secrecy, sexual boundary violations or stopping necessary care must not be invested with spiritual authority.

The New Testament speaks of testing and discernment, including in 1 Thessalonians 5:19-22 and 1 John 4:1-6. These passages are not ready-made tests for every modern situation, but they constrain spiritual self-certainty. With major decisions, it is wise to allow time, seek reliable advice and use verifiable information. The possibility that one's own interpretation may be wrong need not threaten faith.

Relational brain skills can serve this process: recognising arousal, refraining from immediate action, considering several explanations and receiving correction. They cannot prove that God gave a particular message. A brain scan would not solve that problem of authority either. From a Christian perspective, discernment grows through humility, knowledge of Scripture, character and community. A guide who always makes their own impression decisive undermines precisely that development. Good spiritual leadership encourages accountability, including the leader's own.

Being born again and lived change

An evangelical theological framework. The columns describe different kinds of meaning; they are not an empirical account of conversion.

Aspect	Christian meaning	What does not automatically follow
Regeneration	New life through God’s Spirit; John 3:1-8; Titus 3:3-7.	No immediate biological reset or disappearance of all symptoms.
Justification	Receiving grace and reconciliation in Christ; Romans 5:1-11.	No exemption from responsibility or repair.
Adoption	Living as God’s child; Romans 8:14-17.	No compulsory feeling of permanent security.
Sanctification	Ongoing growth in love and obedience; Galatians 5:13-26.	No flawless performance or right to admiration.
Renewal of the mind	Learning to discern and act; Romans 12:1-2.	No proof that thoughts reprogramme one hemisphere.
Prayer and Scripture	Honest interaction with God and listening in context; John 15:1-17.	No guarantee of images, voices or consistently pleasant feelings.
Community and care	Bearing one another’s burdens and personal responsibility; Galatians 6:1-5.	No unlimited availability or exclusion of therapy.

A church that genuinely supports relational growth

A relationally strong church is recognised by more than warm greetings. The question is also how it handles difference, vulnerability and criticism. Can a young person ask questions without being dismissed as unspiritual? Can someone with psychological symptoms participate without constantly having to explain themselves? Is a report of abuse investigated seriously? Church culture becomes visible in such concrete answers.

Intergenerational contact can be valuable when it is reciprocal and careful. Older people can share experience and patience; younger people can bring new questions and perspectives. Neither group is automatically mature in every respect. Mentoring requires clear boundaries, transparency and the option to stop. Spiritual closeness does not confer a right to all another person's personal information.

A church can incorporate relational exercises into ordinary encounters. Begin a conversation with a genuine question. Learn to summarise a disagreement before responding. Make concrete words of repair after a mistake habitual. Let leaders visibly receive correction. Such practices mean more when organisation and policy uphold the same values. A course about safety loses credibility when complaints can only be reported to the leader being complained about.

Serious problems require cooperation with expert care. The aim is not to build competing systems of church and therapy, but to agree appropriate responsibilities with the consent of the person concerned. The church can offer meals, company, prayer and practical support. It does not have to treat every problem itself. From an evangelical perspective, the fruit of the Spirit is recognisable in love, faithfulness and self-control. This requires a culture that welcomes truth and constrains power, even when the image of a successful ministry must consequently be revised.

An eight-week practice journey: integration into ordinary life

A manageable learning process begins with one personal goal and sufficient safety. In the first two weeks, examine a recurring moment: what happens, what do you notice physically, what do you assume and what do you do? Choose a small change, such as one clarifying question. Also establish what is not a practice situation, such as a conversation involving threats. These exercises support formation and reflection; they are not a validated treatment programme.

In weeks three and four, practise attention and regulation. Choose brief conversations with a willing partner. Alternate speaking and summarising. Find a workable pause as arousal rises and agree when to return. Afterwards, ask what the other person actually noticed. Feeling successful is insufficient if the conversation partner still experienced no room to respond. Feedback is descriptive and may also change the practice plan.

Weeks five and six address boundaries and repair. Formulate one request without accusation and respect a no. Repair a small mistake by naming the behaviour, its effect and the follow-through. In the life of faith, you can connect a short daily time of Scripture and prayer with the same value. Ask, for example, how patience can become visible today. Do not use the exercise to earn God's approval or force another person into reconciliation.

In weeks seven and eight, examine transfer to different situations. What works at home, at work and in church? Where are adaptations or professional help needed? Measure progress through behaviour, freedom, safety and repair, not an ideal feeling. A fictional example shows what improvement may look like: someone who previously shut down under criticism still feels arousal, but now asks for clarification and returns to the conversation. Relational development can thus be modest, visible and meaningful. From a Christian perspective, this journey is sustained by grace and directed towards love that genuinely acts.

Questions for personal reflection

Use these questions voluntarily, alone or with a trustworthy conversation partner. They are not scores, diagnoses or tests of faith. Answers may remain private.

Exploring

What is my first interpretation when someone responds briefly? What other explanations are possible? What can I ask directly without accusing myself or the other person?

Body and circumstances

What signals do I recognise before a difficult conversation? What about sleep, hearing, sensory input and demands? Which change in circumstances would be more useful than trying harder?

Freedom and safety

Can the other person genuinely say no to my request? What happens afterwards? Which relationship currently needs protection or expert help rather than more joint exercises?

Faith and growth

Which old response do I mistake for proof that my faith is not genuine? What does the distinction between regeneration and sanctification discussed here say? Where does my behaviour genuinely call for repentance and repair?

One next step

Choose one observable behaviour for the coming week. With whom and when will you practise? How will you ask for feedback? What will you do if the step is too large or the situation proves unsafe?

Bible reading guide

Read each passage in its literary and historical context. The questions below are pastoral applications, not neurological evidence. [37]

Dignity and embodied life

Genesis 1:26-28; Psalm 8; 1 Corinthians 6:12-20. Ask how dignity remains when there is disability or illness.

Jesus, love and servant authority

Mark 3:1-6; Mark 10:42-45; John 13:1-17. Explore how care, truth and power come together.

Regeneration and grace

John 3:1-21; Titus 3:3-7; Ephesians 2:1-10. Distinguish received grace from the good works that follow.

Adoption and hope

Romans 5:1-11; Romans 8:1-27. Read assurance, suffering and prayer in their relationship to one another.

Renewal and fruit

Romans 12:1-21; Galatians 5:13-26; 2 Peter 1:3-11. What small action corresponds to the virtues named?

Abiding, lament and confession

John 15:1-17; Psalm 13; Psalm 42; 1 John 1:5-2:2. Allow honesty without emotional pressure.

Discernment, repair and bearing burdens

1 Thessalonians 5:19-22; 1 John 4:1-6; Ephesians 4:25-32; Galatians 6:1-5; Luke 19:1-10. Distinguish forgiveness, consequences and mutual responsibility.

References and editorial notes

The sources were selected for this essay's questions and do not constitute an exhaustive systematic review. Claims about methods are distinguished from treatment studies. Internet sources were consulted for the original edition on 23 October 2026. Not every original publication is open access; PubMed links provide bibliographic details and, where available, an abstract.

[1] Gerard Feller

Het belang van het ontwikkelen van relationele hersenvaardigheden. 2017.

Supplied Word document, *Relationele Hersenvaardigheden (3).docx*, dated May 2017. The substantive starting point; physiological claims have been critically updated. The Dutch title means The importance of developing relational brain skills.

[2] Ralph Adolphs

The social brain: neural basis of social knowledge. 2009.

Annual Review of Psychology 60, 693-716. Review; DOI 10.1146/annurev.psych.60.110707.163514.

<https://pubmed.ncbi.nlm.nih.gov/18771388/>

[3] Charles Darwin; William James; Donald O. Hebb

Historical works on emotion, psychology and learning. 1872 / 1890 / 1949.

Darwin: *The Expression of the Emotions in Man and Animals* (John Murray, 1872). James: *The Principles of Psychology* (Henry Holt, 1890). Hebb: *The Organization of Behavior* (Wiley, 1949). Historical references, not current treatment guidelines.

[4] John Bowlby; Mary D. S. Ainsworth et al.

Attachment; *Patterns of Attachment*. 1969 / 1978.

Bowlby: *Attachment and Loss*, vol. 1: *Attachment* (Basic Books, 1969). Ainsworth, Blehar, Waters and Wall: *Patterns of Attachment: A Psychological Study of the Strange Situation* (Erlbaum, 1978). Classic research and theoretical works.

[5] Donald W. Winnicott; Daniel N. Stern

Playing and Reality; *The Interpersonal World of the Infant*. 1971 / 1985.

Winnicott (Tavistock, 1971); Stern (Basic Books, 1985). Clinical and developmental background; not every component is an experimentally tested explanation.

[6] Edward Tronick, Heidelise Als, Lauren Adamson, Susan Wise and T. Berry Brazelton

The Infant's Response to Entrapment between Contradictory Messages in Face-to-Face Interaction. 1978.

Pediatrics 62(3), 403. Published brief account of the still-face research. DOI 10.1542/peds.62.3.403.

<https://publications.aap.org/pediatrics/article-abstract/62/3/403/49072>

[7] Hanna Damasio, Thomas Grabowski, Randall Frank, Albert M. Galaburda and Antonio R. Damasio

The return of Phineas Gage: clues about the brain from the skull of a famous patient. 1994.

Science 264(5162), 1102-1105. DOI 10.1126/science.8178168. Historical injury reconstruction; not evidence for a single character centre.

<https://pubmed.ncbi.nlm.nih.gov/8178168/>

[8] Allan N. Schore; Daniel J. Siegel

Attachment and the regulation of the right brain; The Developing Mind. 2000 / 1999.

Schore: Attachment & Human Development 2(1), 23-47, DOI 10.1080/146167300361309. Siegel: The Developing Mind: Toward a Neurobiology of Interpersonal Experience (Guilford, 1999). Integrative models whose levels of evidence must be distinguished.

<https://doi.org/10.1080/146167300361309>

[9] THRIVEdtoday

About; FAQ; Joy Switch, appendices 1-3. n.d..

Primary developer information on the history and nineteen skills. Not an independent effectiveness evaluation. Also: thrivetoday.org/faqs/ and

thrivetoday.org/wp-content/uploads/2022/03/JoySwitch.Appendices1-3.pdf.

<https://thrivetoday.org/about/>

[10] Karl Lehman / The Immanuel Approach

About us. n.d..

The developer's self-description. Used to describe its starting points, not as evidence of broad clinical effectiveness.

<https://www.immanuelapproach.com/about-us/>

[11] Marcus Warner and Jim Wilder; Chris M. Coursey

Rare Leadership; Transforming Fellowship. 2016.

Rare Leadership (Moody Publishers, 2016). Coursey: Transforming Fellowship: 19 Brain Skills That Build Joyful Community (2016). Practice and formation literature within the Life Model tradition, distinguished from independent treatment studies.

[12] OpenStax

Anatomy and Physiology 2e. 2019.

Open textbook, including chapters 12-16 on nervous tissue, communication, the central nervous system and the autonomic nervous system. Used for basic anatomical concepts.

<https://openstax.org/books/anatomy-and-physiology-2e/pages/12-2-nervous-tissue>

[13] Robert J. Zatorre, R. Douglas Fields and Heidi Johansen-Berg

Plasticity in gray and white: neuroimaging changes in brain structure during learning. 2012.

Nature Neuroscience 15, 528-536. DOI 10.1038/nn.3045. Review of learning and imaging; scans do not provide an unambiguous cellular explanation.

<https://pubmed.ncbi.nlm.nih.gov/22426254/>

[14] Jared A. Nielsen et al.

An evaluation of the left-brain vs. right-brain hypothesis with resting state functional connectivity magnetic resonance imaging. 2013.

PLoS ONE 8(8), e71275. DOI 10.1371/journal.pone.0071275. Investigates global lateralisation as a classification of people; does not deny local specialisation.

<https://pubmed.ncbi.nlm.nih.gov/23967180/>

[15] Ralph Adolphs

Cognitive neuroscience of human social behaviour. 2003.

Nature Reviews Neuroscience 4, 165-178. DOI 10.1038/nrn1056. Background on social perception and cooperating systems.

<https://doi.org/10.1038/nrn1056>

[16] Amy F. T. Arnsten

Stress signalling pathways that impair prefrontal cortex structure and function. 2009.

Nature Reviews Neuroscience 10, 410-422. DOI 10.1038/nrn2648. Mechanistic review including animal research; group-level knowledge is not an individual diagnosis.

<https://pubmed.ncbi.nlm.nih.gov/19455173/>

[17] David M. Amodio and Chris D. Frith

Meeting of minds: the medial frontal cortex and social cognition. 2006.

Nature Reviews Neuroscience 7, 268-277. DOI 10.1038/nrn1884.

<https://pubmed.ncbi.nlm.nih.gov/16552413/>

[18] Hugo D. Critchley and Neil A. Harrison

Visceral influences on brain and behavior. 2013.

Neuron 77(4), 624-638. DOI 10.1016/j.neuron.2013.02.008. Review of interoceptive pathways and behaviour.

<https://pubmed.ncbi.nlm.nih.gov/23439117/>

[19] Vinod Menon

Large-scale brain networks and psychopathology: a unifying triple network model. 2011.

Trends in Cognitive Sciences 15(10), 483-506. DOI 10.1016/j.tics.2011.08.003. A theoretical framework, not a diagnostic scanning method for relationships.

<https://pubmed.ncbi.nlm.nih.gov/21908230/>

[20] Ruth Feldman

The Neurobiology of Human Attachments. 2017.

Trends in Cognitive Sciences 21(2), 80-99. DOI 10.1016/j.tics.2016.11.007. Review of attachment, motivation and synchrony.

<https://pubmed.ncbi.nlm.nih.gov/28041836/>

[21] Jennifer A. Bartz, Jamil Zaki, Niall Bolger and Kevin N. Ochsner

Social effects of oxytocin in humans: context and person matter. 2011.

Trends in Cognitive Sciences 15(7), 301-309. DOI 10.1016/j.tics.2011.05.002. An important qualification of simple claims about the love hormone.

<https://pubmed.ncbi.nlm.nih.gov/21696997/>

[22] Björn Rasch and Jan Born

About sleep's role in memory. 2013.

Physiological Reviews 93(2), 681-766. DOI 10.1152/physrev.00032.2012. Not evidence for a fixed timetable of relational change.

<https://pubmed.ncbi.nlm.nih.gov/23589831/>

[23] Katie A. McLaughlin, Margaret A. Sheridan and Hilary K. Lambert

Childhood adversity and neural development: deprivation and threat as distinct dimensions of early experience. 2014.

Neuroscience & Biobehavioral Reviews 47, 578-591. DOI 10.1016/j.neubiorev.2014.10.012. A dimensional model of adversity.

<https://pubmed.ncbi.nlm.nih.gov/25454359/>

[24] Katie A. McLaughlin, David Weissman and Debbie Bitrán

Childhood Adversity and Neural Development: A Systematic Review. 2019.

Annual Review of Developmental Psychology 1, 277-312. DOI 10.1146/annurev-devpsych-121318-084950. Review of 109 MRI studies; important methodological limitations.

<https://pubmed.ncbi.nlm.nih.gov/32455344/>

[25] Nim Tottenham

Early Adversity and the Neotenuous Human Brain. 2020.

Biological Psychiatry 87(4), 350-358. DOI 10.1016/j.biopsycho.2019.06.018. A developmental review, not a deterministic prognosis for an individual child.

<https://pubmed.ncbi.nlm.nih.gov/31399257/>

[26] Stephen W. Porges

Polyvagal theory: a journey from physiological observation to neural innervation and clinical insight. 2025.

Frontiers in Behavioral Neuroscience 19, 1659083. DOI 10.3389/fnbeh.2025.1659083. Hypothesis and Theory; defence and elaboration by the theory's originator.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC12479538/>

[27] Paul Grossman

Fundamental challenges and likely refutations of the five basic premises of the polyvagal theory. 2023.

Biological Psychology 180, 108589. DOI 10.1016/j.biopsycho.2023.108589. Critical analysis of physiology, evolution and measurement claims.

<https://pubmed.ncbi.nlm.nih.gov/37230290/>

[28] National Institute of Mental Health

The Teen Brain: 7 Things to Know. 2023.

NIH publication 23-MH-8078. Used for development, social experience and resilience during adolescence. Age references are broad developmental descriptions.

<https://www.nimh.nih.gov/health/publications/the-teen-brain-7-things-to-know>

[29] Kevin N. Ochsner and James J. Gross

The cognitive control of emotion. 2005.

Trends in Cognitive Sciences 9(5), 242-249. DOI 10.1016/j.tics.2005.03.010. Review of attention and cognitive reappraisal.

<https://pubmed.ncbi.nlm.nih.gov/15866151/>

[30] James A. Coan, Hillary S. Schaefer and Richard J. Davidson

Lending a hand: social regulation of the neural response to threat. 2006.

Psychological Science 17(12), 1032-1039. DOI 10.1111/j.1467-9280.2006.01832.x. Small laboratory study involving sixteen married women.

<https://pubmed.ncbi.nlm.nih.gov/17201784/>

[31] Christoph Flückiger, A. C. Del Re, Bruce E. Wampold and Adam O. Horvath

The alliance in adult psychotherapy: A meta-analytic synthesis. 2018.

Psychotherapy 55(4), 316-340. DOI 10.1037/pst0000172. An association between alliance and outcome does not by itself establish causality.

<https://pubmed.ncbi.nlm.nih.gov/29792475/>

[32] Marsha M. Linehan et al.

Dialectical behavior therapy for high suicide risk in individuals with borderline personality disorder: a randomized clinical trial and component analysis. 2015.

JAMA Psychiatry 72(5), 475-482. DOI 10.1001/jamapsychiatry.2014.3039. A specific research population and carefully organised treatment programme.

<https://pubmed.ncbi.nlm.nih.gov/25806661/>

[33] Anthony Bateman and Peter Fonagy

Randomized controlled trial of outpatient mentalization-based treatment versus structured clinical management for borderline personality disorder. 2009.

American Journal of Psychiatry 166(12), 1355-1364. DOI 10.1176/appi.ajp.2009.09040539. Both conditions improved; findings concern this clinical population.

<https://pubmed.ncbi.nlm.nih.gov/19833787/>

[34] National Institute for Health and Care Excellence

Post-traumatic stress disorder: recommendations, NG116. 2018.

Particularly recommendations on assessment and trauma-focused psychological treatment. A UK guideline; precise indications and local clinical practice require professional assessment.

<https://www.nice.org.uk/guidance/ng116/chapter/recommendations>

[35] Kristin Bernard, Mary Dozier, Johanna Bick, Erin Lewis-Morrarty, Oliver Lindhiem and Elizabeth Carlson

Enhancing attachment organization among maltreated children: results of a randomized clinical trial. 2012.

Child Development 83(2), 623-636. DOI 10.1111/j.1467-8624.2011.01712.x. ABC research involving 120 young children in an at-risk group.

<https://pubmed.ncbi.nlm.nih.gov/22239483/>

[36] Dallas Willard

Spiritual Formation: What it is, and How it is Done. n.d..

A theological and philosophical account of whole-person formation; used as a Christian conversation partner, not as a clinical effectiveness study.

<https://dwillard.org/resources/articles/spiritual-formation-what-it-is-and-how-it-is-done>

[37] The Bible / Bible Society for the Netherlands and Flanders

Biblical passages on creation, regeneration, renewal and relationships. n.d..

Passages are discussed in the book's own words and identified by chapter and verse. The Bible reading guide provides a thematic overview. Not a source of neurological or clinical evidence. The original edition consulted the Dutch text through DeBijbel.nl; this translation uses English biblical book names.

<https://www.debijbel.nl/bijbel/NBV21/JHN.3>

[38] Paul Grossman et al.

Why The Polyvagal Theory Is Untenable: An international expert evaluation. 2026.

Clinical Neuropsychiatry 23(1), 100-112. DOI 10.36131/cnfioritieditore20260110. Recent collective criticism of core claims about vagal physiology and evolution.

<https://pubmed.ncbi.nlm.nih.gov/41768017/>

[39] Stephen W. Porges

When A Critique Becomes Untenable: A Scholarly Response To Grossman Et Al.'s Evaluation Of Polyvagal Theory. 2026.

Clinical Neuropsychiatry 23(1), 113-128. DOI 10.36131/cnfioritieditore20260111. Response by the theory's originator; the existence of a response does not establish contested claims as facts.

<https://pubmed.ncbi.nlm.nih.gov/41768026/>