SELF-REG & FASD

with Stuart Shanker

The MEHRIT Centre

What I Was Asked to Talk About Today

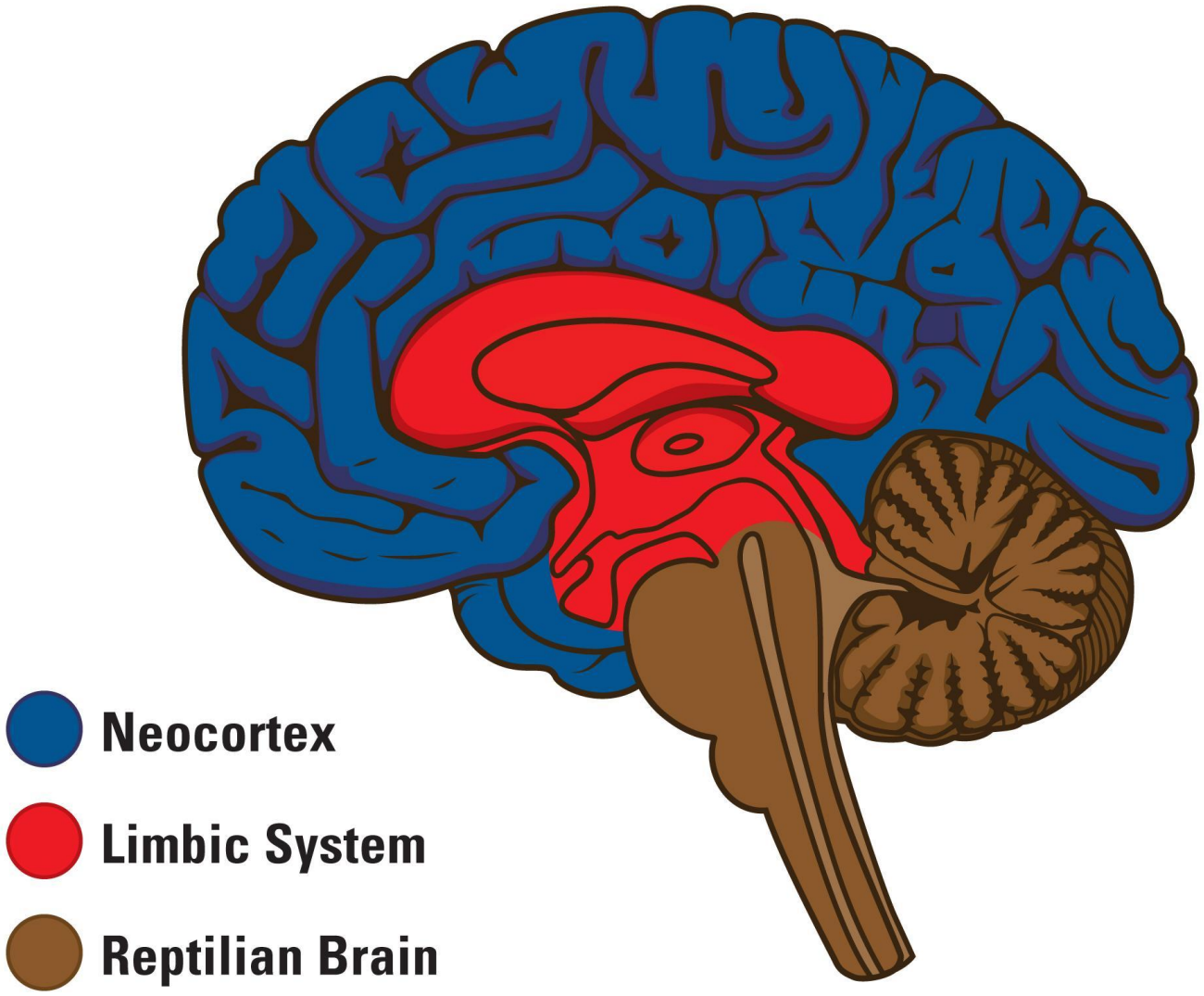
How to support youth to make healthy choices

How to support women to prevent alcohol-exposed pregnancies

Both questions rest on the same assumption:

- In Self-Reg terms, that we are dealing with Blue Brain, rather than Red Brain behaviours

So that's my task for today: to clarify what this means, and why Self-Reg can play such an important role here


Neocortex
Limbic System
Reptilian Brain

Rational (Blue Brain)	Blue Brain, in which the systems supporting higher functions, such as language, reflective thinking, and self-awareness, are dominant;
Irrational (Red Brain)	Red Brain, in which limbic functions are dominant; especially, “limbic alarm”
Non-Rational (Brown Brain)	Brown Brain, in which ancient survival mechanisms are activated (e.g., fight, flight, or freeze).

Instant Gratification

Instant gratification is associated with negative character traits

- Impulsivity, self-indulgence, lack of foresight

Instant gratification is seen as a Blue Brain phenomenon

- I want such-and-such and *choose* to satisfy it NOW
- I am aware that a greater reward would result from waiting, but I *choose* the lesser more immediate reward

So, the underlying assumption in our opening questions:

- The youth or women are making unhealthy immediate choices over longer-term healthy choices

Hence, we see our role as educating them (Blue Brain) to make healthy choices

Delay of Gratification

"The decision to put off satisfying your desire in order to gain an even better reward or benefit in the future"

Associated with discipline, self-restraint

Delay of gratification is seen as resting on self-control

This is why delay of gratification gets linked to a number of positive outcomes (social, psychological, educational, physical, financial)

On this way of thinking, if the youths or women we're concerned about are making poor choices, this is due to a lack of self-control

So, we conclude that to help them, we have to strengthen their self-control

The Marshmallow Task

Seen as a “delay of gratification” task

- Hence, a test of self-control

Demonstration of how easy it is to prime a child’s desires

Original conclusion was that the lack of self-control explains why eating the marshmallow is associated with long-term negative consequences

But the Marshmallow Task is actually a stress test, and the long-term consequences the result of constructive vs maladaptive modes of self-regulation

Why do some Children "Fail" the Test?

Children who can wait do so by self-distracting, self-soothing, reappraisal ("cognitive competencies")

But do the others *choose* to eat the marshmallow?

Choosing requires *deliberation*

Does the child *think about their action* or eat the marshmallow *reflexively*?

Does the child eat the marshmallow to remove the stress?

- Like someone who deliberately infects themselves with Omicron

Choosing vs *Self-Regulating*

Self-Reg distinguishes between

- Blue Brain: *Choosing* the immediate lesser over the greater future reward
- Red Brain: reducing the stress of waiting

The latter is homeostatic reaction, both learned and innate

- E.g., perhaps the caregiver reinforced instant gratification
- Or an automatic reaction to excessive stress, akin to a baby closing their eyes

Instant gratification varies according to energy/tension state (Thayer Matrix)

- Instant gratification is most pronounced in bottom-right quadrant when stress-load is already high

i.e., instant gratification is tied to acute stress:

High Energy/Low Tension (HE/LT)

Children are optimistic and resilient; they seek out and enjoy social interaction; they do not shy away from the prospect of a physical or cognitive challenge.

High Energy/High Tension (HE/HT)

Children can sustain concentration (which is a whole-body phenomenon). The sympathetic (energy-producing) and parasympathetic (energy-restorative) processes are balanced, enabling the child to stay immersed in an activity.

Low Energy/Low Tension (LE/LT)

Heart-rate and breathing are slowed while metabolic recovery functions are enhanced (e.g., digestion, cellular repair and growth, the immune system). In this state, a child is calm and most receptive to restorative activities (e.g., sleeping, resting, chatting).

Low Energy/High Tension (LE/HT)

A child is more prone to resist anything that promotes rest and restoration. He or she is often driven to pursue a stimulus-rich activity in order to produce adrenaline and thereby counter their fatigue (further depleting their energy reserves).

There is Something Odd about Instant Gratification

The fulfillment of a desire is normally experienced as pleasurable, in contrast to the negative experience of failing to do so

But what if the youth or woman feels no pleasure from instant gratification and, far from being satisfied, are still discontented?

What if the pleasure, such as it is, comes not in the satisfaction of the desire, but solely from the anticipation of satisfying the desire?

What if denying instant gratification leads, not to disappointment but anger, even rage?

Wanting vs *Liking*

Studies on rats showed that injecting them with dopamine increases the effort they make to obtain a reward but not the hedonic pleasure

Pool et al. showed stress increases wanting in humans, but not the hedonic pleasure in reward consumption*

Dopamine creates a pleasant feeling of energy while we are seeking, but it does not increase enjoyment we experience from the reward

Wanting and *liking* represent two different neurohormonal pathways: viz., dopamine vs endorphins

Want vs *Need*

Research reveals that a gambling addict *needs* to gamble but doesn't *want* to gamble, doesn't even *want* to win

Oddly enough, what the gambling addict wants is to experience a zoned-out state shorn of all desire (see Reframed ch.11)

We are operating in the realm of compulsion, not choice

- Red Brain, not Blue Brain

The same point arises vis-à-vis the "unhealthy choices" we're concerned with today

Not choices at all; rather, *maladaptive* ways of dealing with stress

Stress and Instant Gratification

Barrett study (2016): On average, participants who reported a high degree of stress also exhibited a high intensity of desire

High levels of stress drive the need for instant gratification, and chronic instant gratification leads to high levels of stress

What children and youths with FASD, or women prone to drinking during pregnancy all have in common is chronic high levels of stress

Their “allostatic load” renders them highly vulnerable to the Hook Model that is so prevalent in today’s world

The Hook Model

Works by triggering dopamine through

- variable reward
- a sound, vibration, smell to alert us to a reward
- Threat of scarcity
- Need for social approval and the sense of belonginess

Once hooked, the need for dopamine drives the cycle and not the rewards

High levels of dopamine are associated with:

- anxiety and agitation
- aggression and depression
- poor concentration
- excessive pleasure-seeking
- digestive problems and nausea
- delusions

The Hook Model Produces Chronic Stress

The Hook Model works by exploiting stress vulnerabilities

- E.g., mimetic desire, social conformity, low self-esteem

The big problem is when it is not pleasure driving the youth or women: it is dopamine-craving

A “dopamine addiction” can lead to more harmful addictions

The child or woman shift from *desire* (instant gratification) to *need*

- From *choosing* to *reacting* (compulsion)
- From Blue Brain to Red Brain

We have to help them develop adaptive ways of managing the stress in their lives so that they can stay in Blue Brain

What is Self-Reg About?

U*nderstanding*, not managing behaviour

Understanding the impact of excessive stress

Distinguishing between *misbehaviour* and *stress- behaviour*

Self-Reg starts with ‘SELF’-Reg

Self-Control vs. Self-Regulation

Self-Control: "mental effort" to inhibit impulses

Self-Regulation: How we manage stress

447 definitions of Self-regulation

446 variations on self-control

Self-Regulation
Maladaptive vs Adaptive Modes

Some modes of self-regulation are *maladaptive:*
e.g., avoidance, excessive sugar consumption, gaming

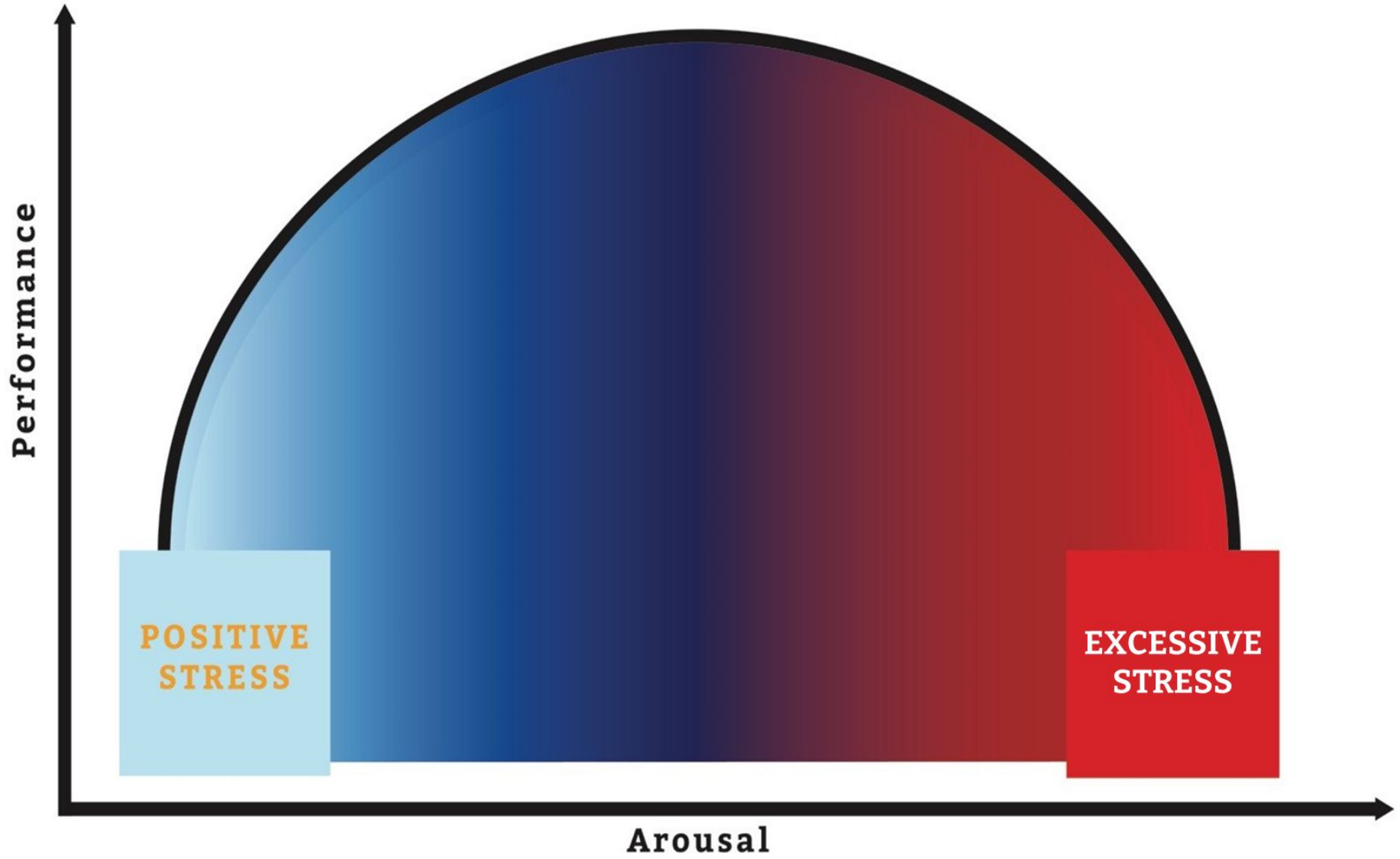
Maladaptive mode Self-Reg creates greater stress down the road (e.g., gaze aversion)

In Self-Reg, we teach adaptive (mindful) ways of dealing with stress

Patterns start to form very early

STRESS

The Yerkes-Dodson Law (1908)



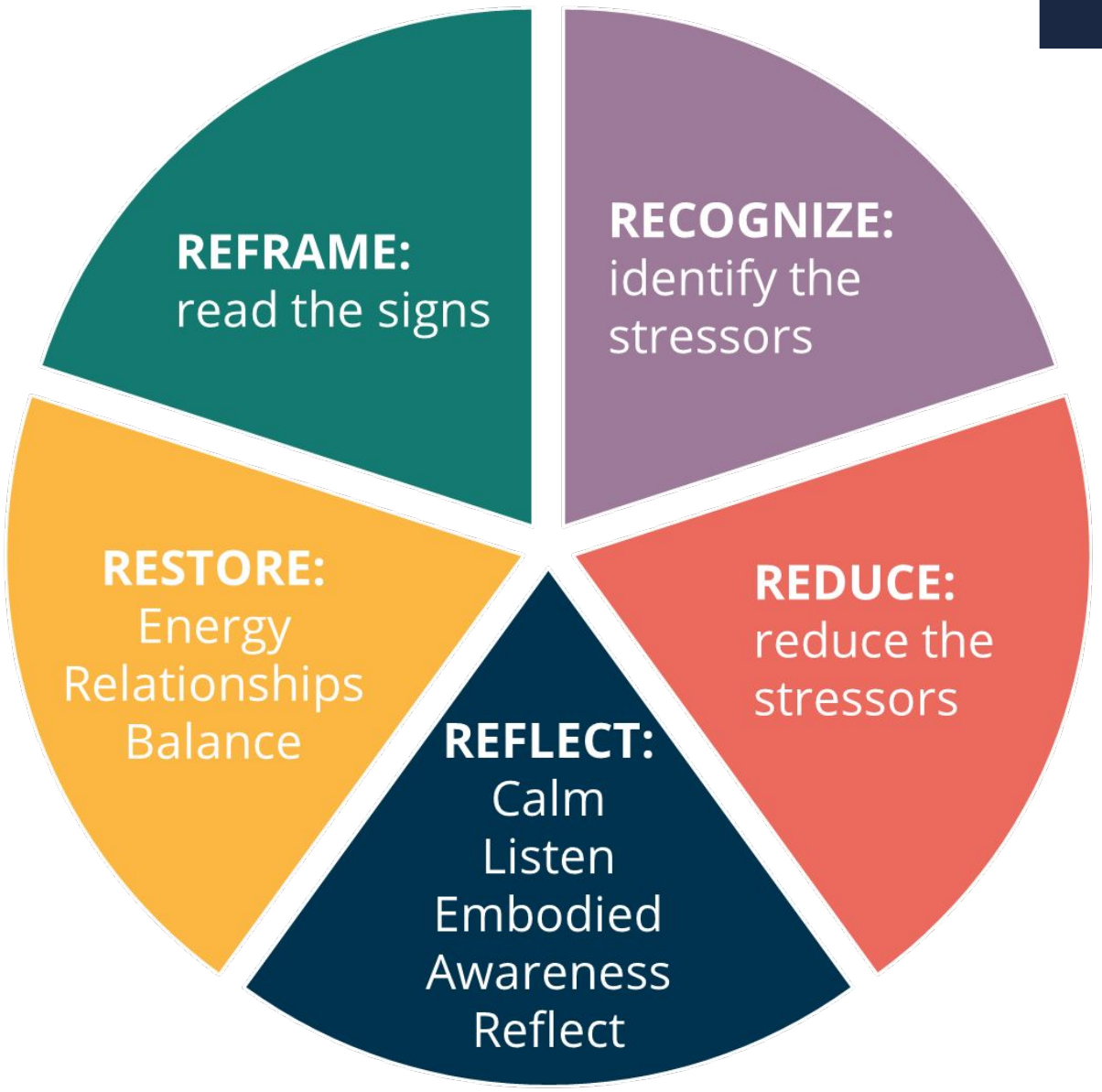
5 Self-Reg Domains: Stressors

Biological	Noises, crowds, too much visual stimulation, not enough exercise, lack of sleep, junk food
Emotion	Strong emotions, both positive (over-excited) & negative (anger, fear)
Cognitive	Difficulty processing certain kinds of information
Social	Difficulty picking up on social cues, or understanding effect of behaviour on others
Prosocial	Difficulty coping with other people's stress; sense of injustice (may include misinterpreting stress behavior as misbehavior)

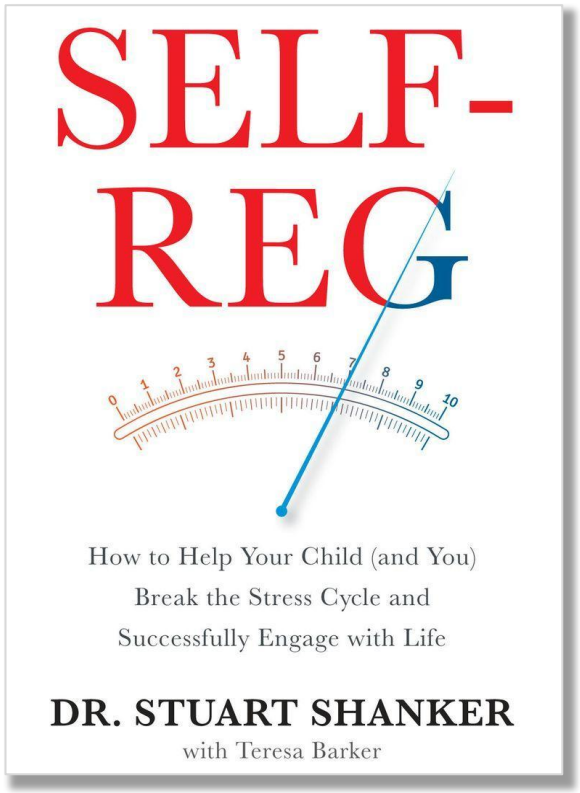
Signs of Over-stressed

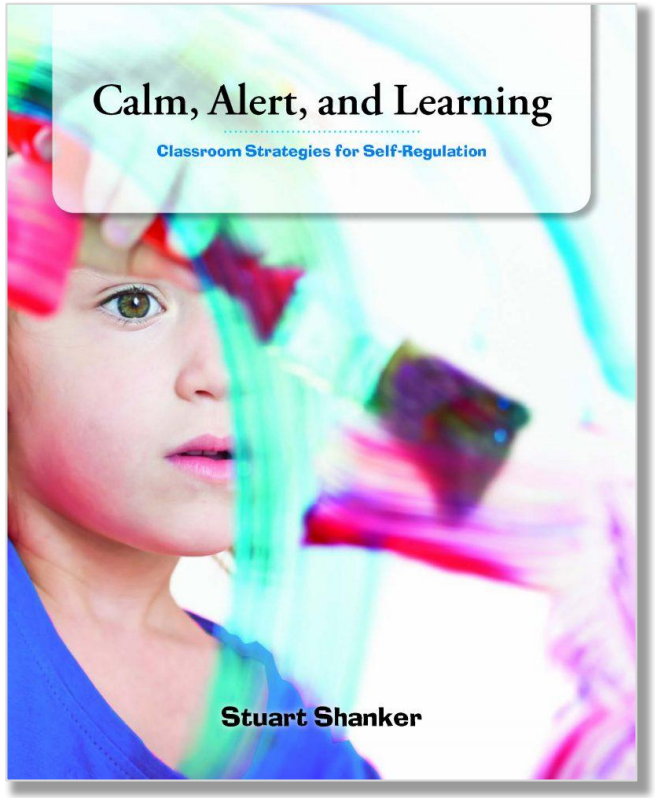
Find it hard to fall asleep or stay asleep	Become much more irritable	Heightened stress-reactivity	Hard to stay focused
Memory lapses	Hard to problem-solve	Lagging energy	Dopaminergic cravings
Constant worrying	Intrusive thoughts	Emotional lability	Anhedonia

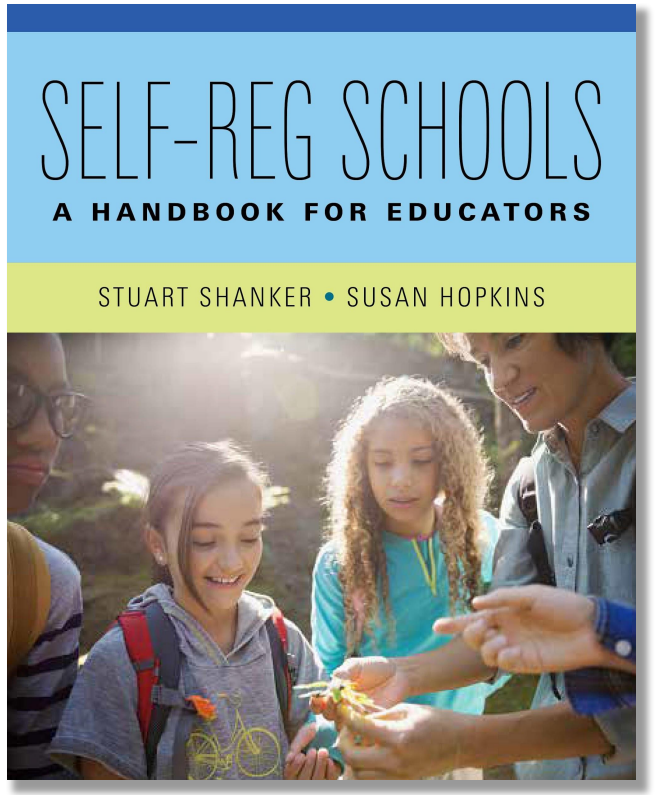
Shanker Self-Reg

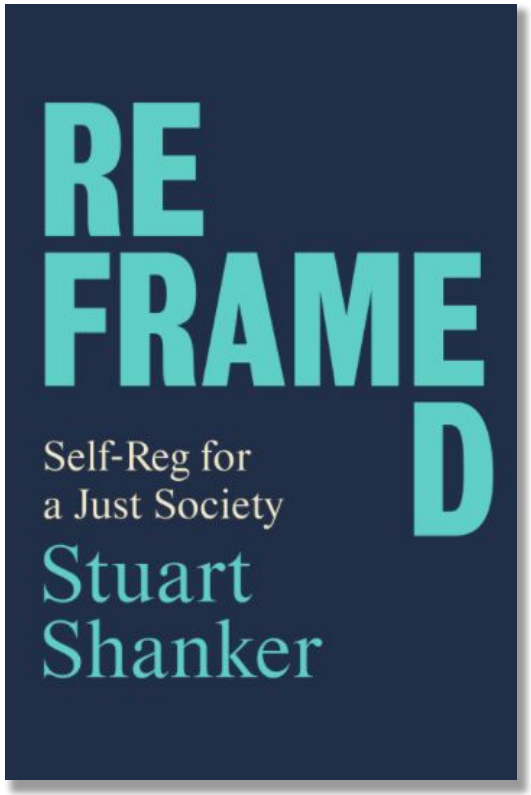


SELF-REG BOOKS









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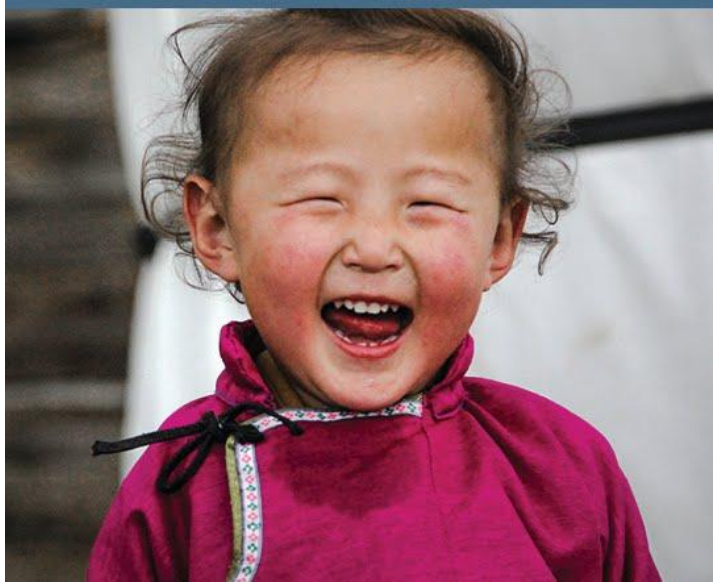

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