

Stretching Kids Without Breaking Them: Stress-Free Ways of Promoting Development

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OVERVIEW

I. Big picture issues that relate to long-term outcomes for our children and our society.

- A. Short-term effects of stress on learning, academics, mood, and psychological adjustment
- B. Short-term effects of insufficient sleep on health, safety, learning, and mood
- C. “Downstream” effects of stress, pressure, insufficient sleep, and a workaholic lifestyle
- D. The collective “psychotic thinking” about education and success

II. The major take-home points:

- A. Children and adolescents need to be challenged in order to develop their potential. They develop best if they are challenged within a context of safety and support.
- B. Stress and fatigue lead to hugely reduced efficiency in brain functioning, and educating students who are tired and stressed is largely unproductive.
- C. By reducing stress, pressure, and fatigue we will end up with better educated, more successful, and better adjusted adults.
- D. Students will be more successful if we emphasize self-understanding, self-regulation, and *maturity* rather than college admissions as the main goals of school.

III. The importance of a non-anxious presence (an adult who is not afraid) in development

- A. While kids don't need perfect parents (just good enough parents), they benefit greatly from a non-anxious presence. When not stressed/anxious we can:
 - 1. 1. Comfort an infant or sooth a toddler
 - 2. 2. Respond to children in a flexible, mature, understanding manner
 - 3. 3. Enjoy our kids (which may be the best gift we can give them).
 - 4. 4. We can enjoy the process of seeing who kids and teenagers decide to become.
- B. Attachment (the secure bond between infant and care giver) is a key construct.
 - 1. Attachment is the foundation for resilience. Inner security allows for growth.
 - 2. Security of attachment is the best predictor of finishing college (Alan Sroufe).
 - 3. Attachment hugely influences the development of the child's stress response.
 - 4. By 12 months it is difficult to elevate cortisol in children with secure attachment.
- C. Resilience develops through coping with challenges in a supportive environment.
 - 1. Michael Meaney: Rats removed for 15 minutes a day and licked/groomed upon returning developed stable, appropriate stress hormone response.
 - 2. We don't want to protect children from challenge, difficulty.

3. We want to help them grow from challenge and not be afraid to take risks.

WHAT IS STRESS AND WHY IS IT SUCH A BIG DEAL?

I. The human stress response (which occurs when situations are perceived as stressful)

- A. The brain is a threat detector. (S. Lupien; S. Porges)
 1. “We’re constantly seeking safety and calmness.” (Porges)
 2. The brain perceives threat and initiates the fight, flight, or flee response.
 3. The *amygdala* is particularly sensitive to threat.
 4. Some kids born with a very reactive *amygdala*, others with a laid back *amygdala*.
- B. The stress response (fight, flight, or freeze) evolved to protect us from predators.
 1. The same chemicals released by academic stress or being late as facing a tiger.
 2. The stress response evolved to last a few minutes or hours at most.
 3. In modern life, the stress response can stay turned on for weeks, months.
 4. Chronic exposure to stress hormones (e.g., **cortisol**) is almost always harmful.
- C. Four characteristics of stressful experiences: “NUTS” (Sonia Lupien)
Novelty; Unpredictability; Threatening to self; low **S**ense of control

II. Why stress is bad for learning (“Stress makes us stupid.” - Daniel Goleman)

- A. Why we are, literally, out of our minds when we are highly stressed:
 1. Instinctive behavior has survival value in crisis (you can’t overthink responses).
 2. Stress thus “disconnects” higher cognitive centers from primitive stress centers.
 3. Nature doesn’t want us to stop and think clearly when we’re threatened.
- B. How stress undermines learning
 1. Stress makes it hard to concentrate, as it impairs *selective attention*.
 2. Impairs *planning, organization, inhibition, working memory, executive skills*.
 3. Stress limits *mental flexibility, problem solving, creativity; “outside the box”*
 4. Stress compromises *memory storage, retention, and retrieval*.
 5. Under stress, students will work harder but produce poorer quality work
- C. Educational implications from research on stress
 1. The optimal internal state for learning is relaxed alertness.
 2. The optimal learning environment involves high challenge but low threat.
 3. Kids need to feel safe in school to learn (*alma mater* = fostering mother).

III. Stress and mental health

- A. Stress, anxiety, and depression (“Stress is to depression what that iceberg was to the Titanic.”)

- Pine)
1. Mood and anxiety disorders are disorders of stress dysregulation (Danny
 2. Many scientists believe that we are seeing an epidemic of depression.
 3. The age of onset for depression has become younger and younger.
 4. It takes less and less stress to trigger subsequent depressions.
 5. Gender differences: Girls are much more vulnerable after puberty.
- B. Downstream effects of depression in adolescence
1. Depression “scars” the brain, raises risk of future depression..
 2. Extraordinary increase in serious mental illness on college campuses
 3. The importance of preventing mental health problems in young people (D. Pine).
- (Kadison).
young people (D. Pine).
- C. The potential effects of stress on moral, character, and motivational development
1. Recent research: Many high-achievers feel they must compromise their
 2. Development of a false self (Roni Cohen-Sandler’s *Stress Out Girls*).
 3. High stress compromises development of intimate peer relationships.
 4. High stress fuels need for escape and/or control – at risk for drugs, alcohol, etc..
 5. Prolonged stress results in loss of pleasure in challenges.
- D. Some mental health problems are more common in affluent kids.
1. Depression, anxiety disorders, eating disorders
 2. Substance abuse

INSUFFICIENT SLEEP AS A CHRONIC STRESSOR

I. The importance of sleep: Rest is the basis of activity. (Maharishi Mahesh Yogi)

- A. Sleep is crucial for survival, growth, repair and healing.
- B. Sleep is highly associated with self-regulation, mental health.
- C. Sleep is very important for learning, memory, and retention.

II. Children and their parents and teachers are profoundly sleep deprived.

- A. Adults sleep 20-25 percent less than 100 years ago (and are sleeping less every year).
- B. Children sleep much less than they used to.

1. In 1995, adolescents slept 20 percent less than they had eight years earlier.
2. On average, children sleep one hour less today than they did 40 years ago.
3. Even kindergarteners sleep hour less per night.

C. National Sleep Foundations current sleep report card:

1. Ninety (90) percent of parents think their kids get enough sleep.
2. 60 percent of high school students report extreme daytime sleepiness.
3. Half of all teens get less than seven hours on week nights.
4. By 12th grade, they average slightly more than 6 .

III. Sleep deprivation should be considered chronic stressor contributing to overload.

(Bruce McEwen)

- A. Sleep deprivation leads to higher cortisol levels, increased reactivity to stress.
- B. Sleep deprivation has similar cognitive and emotional effects as chronic stress.
- C. Losing one hour of sleep for one night significantly changes EEG in children.
- D. Chronic sleep insufficiency is equivalent to acute sleep deprivation in young adults.
- E. (Same performance with 4-6 hours/night for 6 weeks and no sleep for three days.)

IV. Even very minor sleep restriction impairs cognitive functioning in children and adolescents.

- A. Study of minor sleep restriction for three nights (Avi Sadeh, Tel Aviv University)
- B. Fourth and sixth graders slept one hour more or less than usual for three nights.
- C. Sixth graders who slept 35 minutes less functioned like fourth graders on tests.
- D. They lost two years of cognitive efficiency in working memory, attention, and reaction time.

V. Mind blowers:

- A. If you are ever tired during the day, its because you are sleep deprived.
- B. Nature wants you to go to bed the same time every night and wake up without an alarm.

MOTIVATION: MINDSETS, FLOW, AND ACCURATE MODELS OF SUCCESS

I. Motivation and self-regulation

- A. Motivation is hugely complex, involving both intrinsic and extrinsic aspects (ranging from what Daniel Pink calls Motivation 1.0 to Motivation 3.0).
 - 1. Motivation 1.0 = motivation to survive (biological drives like hunger, thirst, sex)
 - 2. Motivation 2.0 = response to external rewards and punishment in the environment
 - 3. Motivation 3.0 = intrinsic motivation fueled by autonomy, mastery, and purpose

B. Self-regulation is hugely related to motivation (examples):

- 1. Ability to manage stress and frustration affects motivated behavior.
- 2. Being able to turn off the T.V. is related to the pursuit of goals.
- 3. Ability to get enough rest is strongly predictive of success in goal attainment.
- 4. Ability to delay gratification

II. Motivation depends, in part, on whether experiences activate the brains reward system.

A. Discovery of the brains pleasure center in 1954 by James Olds

- 1. Rats stimulated by a mild shock in the lateral hypothalamus would seek the stimulation out; if allowed to self-administer, they would do so until they collapsed.
- 2. Later studies in humans found that people would neglect everything to get stimulation.

B. Later research: It wasnt exactly pleasure they were seeking but seeking itself (Panksepp)

- 1. In mammals, seeking is the granddaddy of emotional brain systems.
- 2. Seeking is the mammalian motivation engine; foraging is the prototype.

3. Animals in captivity would prefer to search for their food than have it given.
4. Babies and young children show innate drive to explore and seek experiences.
5. This includes intellectual seeking and seeking of physical pleasure, mastery.

C. The core of goal-directed behavior is expectation (R. Sapolsky)

1. Dopamine is important for pleasurable anticipation, fueling reward-seeking.
2. The biggest burst of dopamine is just before the reward-seeking behavior starts.
3. Dopamine levels are even greater when reward is likely but not certain.
4. When unsure, pleasure is even more about wanting and anticipation than reward.
5. It's not as much reward as anticipation, curiosity, excitement of pursuit.
6. Dopamine is more involved in the wanting of something than the liking of it.

III. Possible gender differences

A. When stressed, boys trigger the fight or flight response, girls tend and befriend.
(Taylor).

1. Boys experience arousal under stress, related to a need to strive for dominance.
2. Girls show decreased heart rate; nausea; dizziness; desire to hug, be hugged.
3. Girls bond under stress and favor egalitarian alliances.

B. Differences in learning (Adele Diamond)

1. Males perform better with slight stress (may start out with low dopamine levels).
2. Females perform better with no stress.

C. Girls are more interested in – and consistently motivated to achieve in – school.

1. Girls have higher standards and evaluate their performance more critically.
2. Girls are more concerned about pleasing their parents and teachers.
3. Girls tend to generalize the meaning of any school-related failures.

IV. Carol Dweck's "Growth Mindset" versus the "Fixed Mindset" (see her book, *Mindsets*)

A. Dweck studied adaptive versus maladaptive motivation patterns

1. Adaptive: Goal is learning, mastery, or increasing competence. Manifests as challenge seeking, high persistence; enjoyment of effort toward mastery.
2. Maladaptive: Goal is to gain positive judgment or avoid negative judgment. Shows as challenge avoidance, low persistence, anxiety re: obstacles.

B. She then asked what was "underneath" these motivational patterns.

1. The **growth mindset**: Basic qualities, abilities are things you can cultivate through effort. This belief creates love of effort, challenge, growth, learning.
2. The **fixed mindset**: Qualities, abilities are carved in stone. Every situation is a test of intelligence, personality, or character, is a success or failure.

V. The flow experience and intrinsic motivation (Csikszentmihalyi)

A. Flow is a state of full engagement that involves intrinsic motivation and high attention.

1. It involves a balance of a child's internal drive, his skill, and the challenge of the task.

2. "Flow occurs in that delicate state zone between boredom and anxiety.
3. The quality of attention in flow is relaxed and yet highly focused.
4. In a flow state, facing challenge and difficulty is extremely pleasurable.
5. Effort is its own reward; it is activity for its own sake.
6. Flow states produce significant increase in levels of dopamine in the reward system.

B. Reed Larson's study of the development of voluntary attention and self-motivation

1. The best way is through the flow that comes through unstructured leisure activities.
2. When children involved in pastimes, they feel excited and forget their problems.
3. They experience high internal motivation and high concentration.
4. This provides reinforcement for directed effort, learning, and accomplishments.
5. This cannot be achieved as successfully in any other way.

VI. Cooperation versus competition

A. Competition in schools

1. Eighty percent of activities in suburban public elementary schools are competitive.
2. Competition is a weak motivational strategy in the classroom.
3. Only children who believe they have a chance to win are motivated by competition.
4. Considerable research has found cooperative learning superior to competitive.
5. We do our best work when we compete against ourselves (personal best).
6. We should focus on individual and cooperative learning activities, not competition.

B. Competition in life: Most employment is not competitive.

1. Less than 20 percent of the workforce is paid according to individual performance.
2. Work success depends on competence, cooperation, motivation - not competitiveness.
3. The relationship between competitiveness and life success is low.

VI. Rewards and punishment

A. External rewards have some benefit.

1. Can be helpful for short-term goals, modifying behavior, getting cooperation.
2. Are effective for brief, routine, rule-bound tasks with little intrinsic payoff.
3. Can get a student started on something, may take important first steps.
4. Can sustain a learner at times of pressure and difficulty.
5. May motivate the first steps in moving toward intrinsic motivation.
6. For kids with ADHD, rewards can get the brain to activate for boring tasks.
7. Rewards can help kids do stuff that is really hard (e.g., go to bed on time).

B. Tangible incentives can decrease motivation over time, give us more of what we don't want.

1. When extrinsic reinforcement is offered for learning, learning is actually reduced.
2. Rewards can lower performance, crush creativity, lead to bad behavior (Pink).
3. They can create addictions, foster unethical behavior, foster short-term thinking.
4. They can reinforce idea that someone other than you is responsible for your life.
5. They can erode self-generated interest, lead to interest only in the reward itself.

C. The brain sees rewards and punishment as a loss of control, which is stressful.

1. The brain sees through extrinsic rewards; it evolved to detect and resist control.

2. It will devise ways to get the reward without learning, doing the job or assignment.
 3. (Kids often get As in courses they hardly remember after a few months.)
- D. Daniel Pink's book, *Drive*, describes Motivation 3.0 (replaces carrot/stick). It has three elements:
1. Autonomy - the desire to direct our own lives. Our default setting is to be autonomous and self-directed. People need autonomy over task, time, team, and technique.
 2. Mastery - the urge to get better and better at something that matters. Only engagement can produce mastery. Mastery begins with flow.
 3. Purpose - humans by nature seek purpose.

STRESS-FREE IDEAS FOR PROMOTING DEVELOPMENT IN CHILDREN AND TEENS

I. Shoot for balance in your own life and regularity in routine.

- A. Decide to make living a balanced, centered, and healthy life a priority for yourself.
1. Protect your own brain, body and your happiness.
 2. Model good self-care for you kids, including respect for rest.
- B. Regularity of routine means consistency in:
1. Sleeping and eating
 2. Exercise and stress management.
- C. Most happy, relatively non-anxious people have regular routines for de-stressing.
1. Exercise (see the book *Spark* by John Ratey)
 2. Yoga, meditation, massage, forest bathing
- D. Get enough sleep. Get enough sleep. Get enough sleep.

II. Take a long view.

- A. Have faith in frontal lobe development.
- B. Remember that the vast majority of kids turn out fine.
- C. Maintain a sense of humor; enjoy seeing who your kid decides to become.

III. Place enjoying your child as the highest priority

- A. The value for a child of experiencing himself as a "joy-creating organism"
1. Being glad to see them
 2. Spontaneously enjoying their company
- B. Try to remove blocks to enjoyment

1. Get help if necessary to handle problem behavior.
2. Do what you can to de-stress.

IV. Listen, empathize, help children understand themselves without taking on their pain.

A. The value of parents really listening to their children and to each other

1. *How to Listen So Your Kids Will Talk and Talk So Kids Will Listen*
2. If we validate their point of view, they will tend to look to us for guidance.
3. When you're empathetic, you model skill that's crucial for good relationships.

B. We can help kids feel good about themselves better if we aren't worried sick.

1. Resilience develops through dealing with challenges (Michael Meaney)
2. We can be more flexible in helping if we stay calm and centered.
3. Motto: Calm ourselves first.

V. Practice acceptance of – and making peace with – current reality. (It's OK for your kid to be who he or she is right now.)

A. Accepting these truths is liberating and empowering:

1. You can't make someone do something against their will.
2. You can't make someone want something they don't want.
3. You can't make someone not want what they want.
4. Mantra: It's OK for them to want what they want, not want what they don't want.

B. The truth is, it's the child's life, and he or she is ultimately responsible for it.

1. This means, in part, that it's the child's responsibility to do schoolwork (or not)
2. We should guide, support, teach, provide consequences – but not try to force.
3. Often attempts to change others cause them to hold tighter.
4. Being clear about who's responsible for what is extremely empowering.
5. Don't work harder to help a kid than the kid works to help herself.

C. A close corollary: Don't work harder to help a kid than he works to help himself.

1. Underachievers spend huge energy resisting doing what's in their best interest.
2. They also spend great energy resisting others' attempts to help them.
3. If we feel like we're working harder, say "Something's wrong with this picture."
4. If we take responsibility for what is theirs, we will weaken them.

D. For support in accepting: Read books like Byron Katie's *Loving What Is*, Barry Kaufman's *To Love Is To Be Happy With*, or Eckhart Tolle's *The Power of Now*.

VI. Place a strong emphasis on promoting self-understanding in kids. "We should be thinking less about how to motivate students than trying to identify what is already motivating them." (James Zull)

A. Help them figure out what they truly want, think about their special talents, life purpose.

1. What do I want?

2. What do I love to do?
3. What am I good at?
4. If there's a reason we are here, what is my purpose?
5. What do I need help with?
6. How can I get myself to do what I want and/or need to do?

B. Remember that adults don't truly know what's in a child's best interest.

1. We don't know ultimately what he/she wants; that's for him or her to figure out.
2. Often what seems to be an enormous problem turns out to be a great gift.

C. Emphasize **creating a life, developing oneself in order to serve the world.**

D. Teach that self-understanding involves knowing how to motivate oneself to pursue goals.

VII. Teach, model, and attribute a love for challenge and persistence in the face of difficulty.

- A. Model enjoyment of discovering strategies, solving difficult problems.
- B. Point out to children students when they demonstrate effort and persistence.
- C. Teach kids that things happen for a reason; something good can come out of anything.
- D. Teach kids that many successful people *fail their way to success*.

VIII. Encourage "flow" in any activity and emphasize the value of pastimes.

- A. Teach kids that working hard at things they love trains their brain for success.
- B. Successful people don't find something they hate and make themselves do it.
- C. Remember that children don't have to be pushed constantly to use their potential.
 1. Benefits of leisure, rest, "downtime"
 2. Historical examples (e.g., Einstein working in a patent office)
 3. If it feels to you like you're pushing, remind yourself that this isn't helpful.

IX. Encourage children to practice decision making; insist on adolescents doing so.

- A. Possibly the best thing you can communicate to a child or an adolescent is confidence in his ability to decide for himself.
 1. Communicate "You're the expert on you" and "You've got a brain in your head".
 2. Help kids understand pros and cons, then go with their decision unless it's crazy.
 3. With very young children, give choices.
- B. Children need practice looking at themselves honestly, trusting their own intuition.
 1. Tell them "It's your call."
 2. Ask, "How did that work out?"
- C. Adolescents need practice running their own lives: (Don't send a kid to college who hasn't had lots of experience making his own decisions.)

X. Don't fight over homework!

- A. Home as a safe haven: For kids who are stressed in school, home should be a place
- B. Parents are the people charged with loving unconditionally.

XI. Resist making decisions based on fear and/or competition.

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- A. Fear that child's potential will not be fully realized
- B. Fear that other kids will get ahead of yours
- C. Remember, kids need to feel safe in school.

VII. Undermine the myths about life success.

- success.
- A. Top students are far more successful than other students (It's Yale or McDonalds.)
 - 1. Valedictorians aren't more successful than other college graduates by late 20's.
 - 2. The skill set required to be a successful student is very different from life
 - 3. If we teach kids that their future depends on doing well in school and, by definition, half the population is below the mean, we create a lot of discouraged kids.
 - B. High school grades will follow you the rest of your life. (In fact, once a student has 30 or so credits at a community college he can apply to college without submitting a high school transcript.)
 - C. Where you go to college makes an enormous difference in your success in life:
 - 1. It makes little difference in career success, none in life success more generally.
 - 2. No relationship between college attended and lifetime earnings or happiness. .
 - D. High homework loads produce the best learning:
 - 1. After 70 years of research, no positive relationship has been found between homework and learning in elementary school.
 - 2. Studying when you are tired is a complete waste of time.
 - E. Life is highly competitive and successful people are highly competitive.
 - 1. There is much more cooperation than competition in adult life.
 - 2. Successful people are passionate about what they love.
 - 3. Successful people work hard and are resilient about perceived failure.

SUGGESTED READING

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|---|---|
| C. Dweck, <i>Mindsets</i> | D. Amen, <i>Change Your Brain, Change Your Life</i> |
| R. Lavoie, <i>The Motivation Breakthrough</i> | J. Zull, <i>The Art of Changing the Brain</i> |
| T. Hartmann, <i>Healing ADD</i> | R. Greene, <i>Lost in School</i> |
| D. Pink, <i>Drive</i> | R. Dreikurs, <i>Children the Challenge</i> |
| R. Sapolsky, <i>Why Zebras Don't Get Ulcers</i> | M. Diamond, <i>Magic Trees of the Mind</i> |
| A. Kohn, <i>Punished by Rewards</i> | |