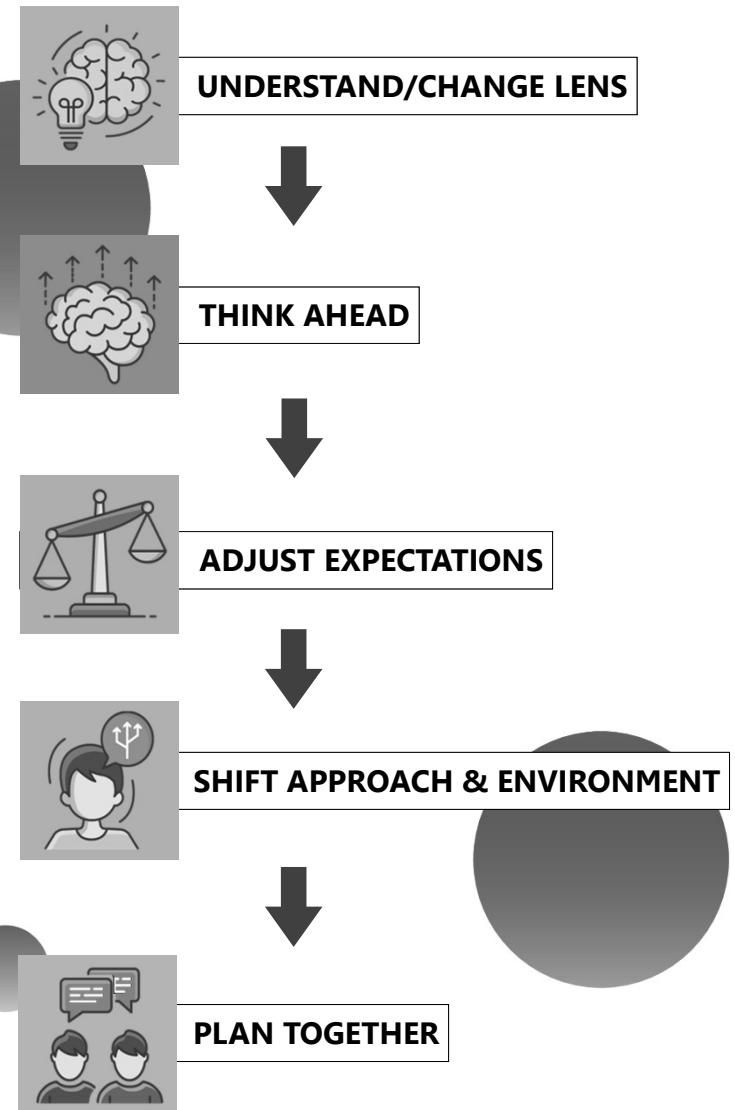


Cognitive Supports™ Presents:

It's a Brain Thing!

**Written and Presented by Nate Sheets
FASD and Behavior Consultant
cogsupports.com**



Housekeeping

- **Slides at cogsupports.com/22825**
- We will have breaks!
- You can ask questions in the chat.
- Please do not share slides!



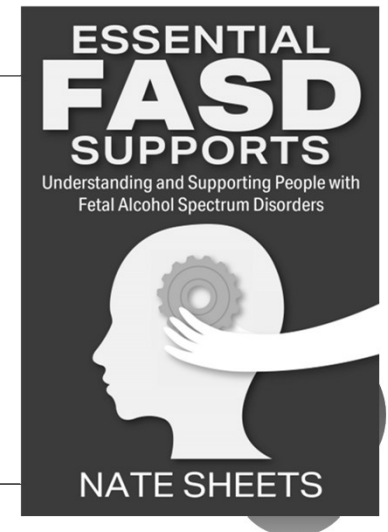
NATE SHEETS

FASD Consultant and Parent Coach

Creator of Cognitive Supports™

EXPERIENCE

- Foster/adoptive brother since 1993
- 14 years in developmental disabilities
- Independent behavior consultant
- Specialize in Fetal Alcohol Spectrum Disorders
- Author of "Essential FASD Supports"



EDUCATION

BA in Business Administration



NATE SHEETS

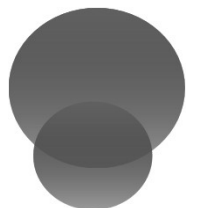
Behavior Consultant and Parent Coach

Creator of Cognitive Supports™

APPROACH/INTERESTS

Cognitive Skills/Neuroscience

- Focus on mechanics of thought
- Polyvagal Theory
- Executive functioning
- Neurodiversity



A black and white portrait of Myles Himmelreich, a man with a beard and short hair, wearing a dark jacket over a dark shirt. He is smiling and looking slightly to the right. The background is out of focus, showing some foliage and a building.

Myles Himmelreich
Advocate, Speaker
www.MylesHimmelreich.com

A black and white close-up portrait of Helen Simpson, a woman with long, dark, curly hair. She is smiling and looking towards the camera. She has a nose ring and small hoop earrings.

Helen Simpson
Author, Speaker, Advocate
www.lovemeenough.com

Positive Traits & Strengths of People with FASD's

Kids and adults with FASD's have many strengths.

Good with animals

Good speakers, expressers

Empathetic

Successful in childcare, customer service, food services, and caregiving/social work

Artistically and musically talented

Good with younger kids

Motivated to help others

Friendly

Cognitive/Academic



UNDERSTAND/CHANGE LENS

FASD's

Fetal Alcohol Spectrum Disorders

- Prenatal exposure is the #1 cause of FASD's, intellectual disabilities, and learning disabilities in the world.

(Mukherjee, Hollins, Turk)

- Prevalence:
 - Conservative: 1.3% to 5.0%
 - Weighted approach: 3.1% to 9.8%

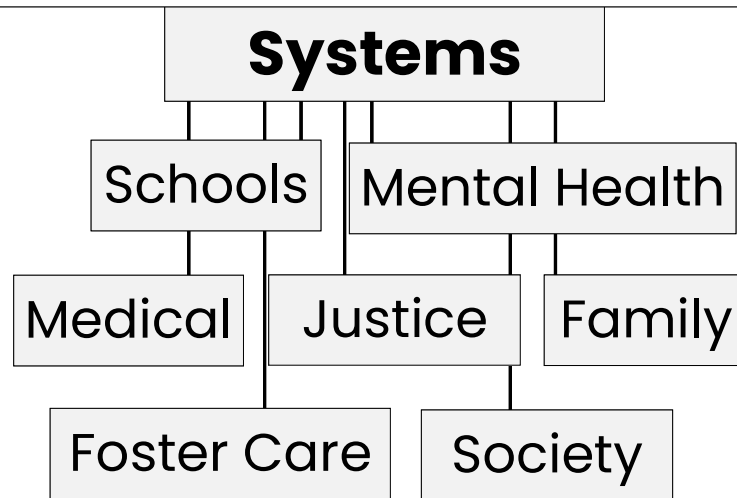
(2018: May, Chambers, Kalberg, et al)

– Higher than prevalence estimates for Autism





UNDERSTAND/CHANGE LENS



"Systems" include:

- Professionals and adults
- Processes in the system
- Stated ideals and goals
- Policies and laws governing the system

Systems are neither ***informed*** or ***equipped*** to support people with FASD's.

Invisible Disabilities

Inconsistent skills

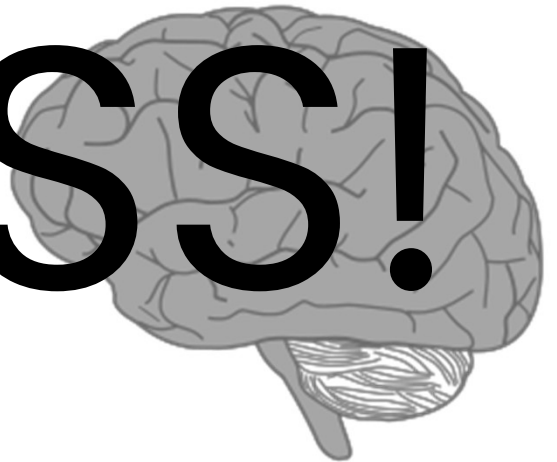
Sensory dysregulation

Polyvagal Theory/Trauma

"Challenging Behaviors"

Lack of Support Creates *Stress*

5% of the population + No systems support
= **STRESS!**



UNDERSTAND/CHANGE LENS

Systems

System Stress

Who Gets Stressed?

Person with FASD

- Continually has behaviors misunderstood and punished in ineffective ways
- Continually held to too-high of expectations
- Loss of relationships due to misunderstanding and lack of support

Families/Caregivers

- Do not know how to address behaviors
- Few resources during crises, including mental health crises
- Continual pushback, denial of how FASD impacts person's behavior, caregiver fatigue

Professionals

- Not given effective tools or training for FASD
- Confusing when client seems to get it, but then doesn't change



UNDERSTAND/CHANGE LENS

Systems



UNDERSTAND/CHANGE LENS

FASD's



What Are FASD's?

Fetal Alcohol Spectrum Disorders

A group of disorders given to people who were exposed to alcohol in the womb.

- Most are *invisible*—no facial features!
- Often misdiagnosed as Autism and/or ADHD at early ages
- Delays in significant “symptoms” are common (e.g. 10 to 12 years-old)

FASD's *FAS vs. FASD*

Fetal Alcohol Spectrum Disorders (FASD's) are a group of neurodevelopmental and medical diagnoses

- Fetal Alcohol Syndrome FAS
- Alcohol-Related Neurodevelopmental Disorder (ARND)
- Neurobehavioral Disorder associated with Prenatal Alcohol Exposure (ND-PAE)
- Alcohol-Related Birth Defects (ARBD)
- Partial FAS (PFAS)
- Fetal Alcohol Effects (FAE)



UNDERSTAND/CHANGE LENS

FASD's



FASD's *FAS vs. FASD*

If your child has been diagnosed with anything related to prenatal exposure to alcohol, it is accurate to say that they have an FASD.



UNDERSTAND/CHANGE LENS

FASD's



WHEN I HEAR

**"BUT THEY DON'T HAVE
ANY FACIAL FEATURES!"**



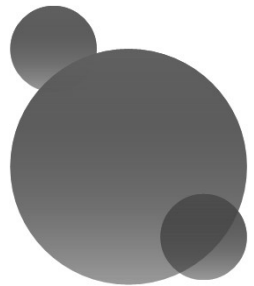
UNDERSTAND/CHANGE LENS

FASD's

FASD's *Diverse and Individualized*

While some FASD traits are expected, each situation must be looked at individually.

Everyone is different, and there are many **non-FASD** considerations.





UNDERSTAND/CHANGE LENS

FASD's



FASD's

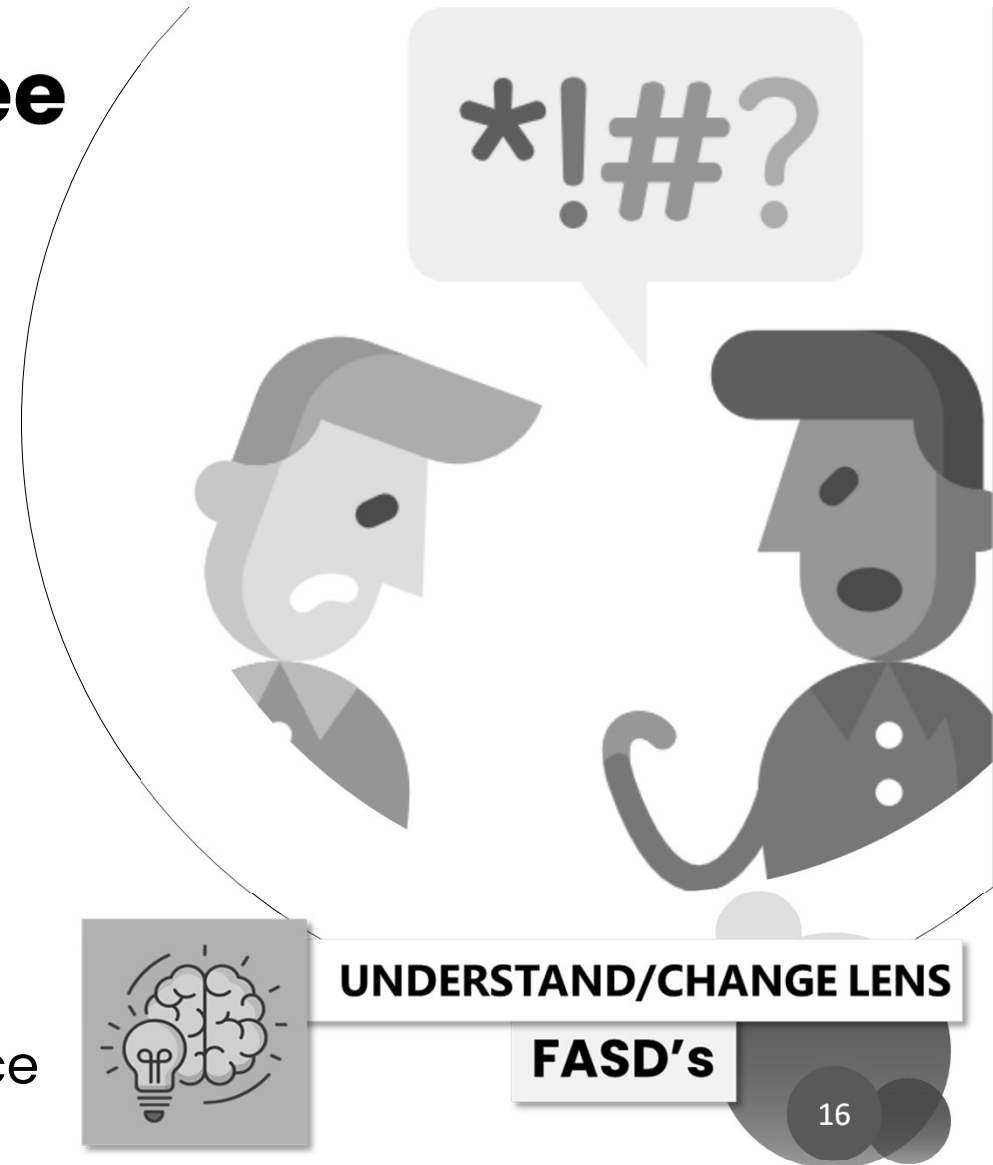
Highly Stigmatized

Lack of understanding about **human behavior** contributes to stigma against people who drink during pregnancy. This leads to:

1. **Lack of prenatal services**
2. **Lack of diagnosis for child**
3. **Lack of information about pregnancy due to shame**
4. **Prevention campaigns that do not address the underlying, complex reasons why people drink during pregnancy**

From the outside, we see behaviors, risks, and struggles:

- Impulsive behaviors
- “Lying”
- “Stealing”
- Risk-taking
- Inability or refusal to stick to a task/start a task
- Refusal to do schoolwork
- Emotional regulation challenges
- Struggles in interactions with peers
- Difficulty sustaining relationships
- Increased likelihood of criminal justice involvement



WHY IS IT HARD TO SUPPORT A PERSON WITH AN FASD?

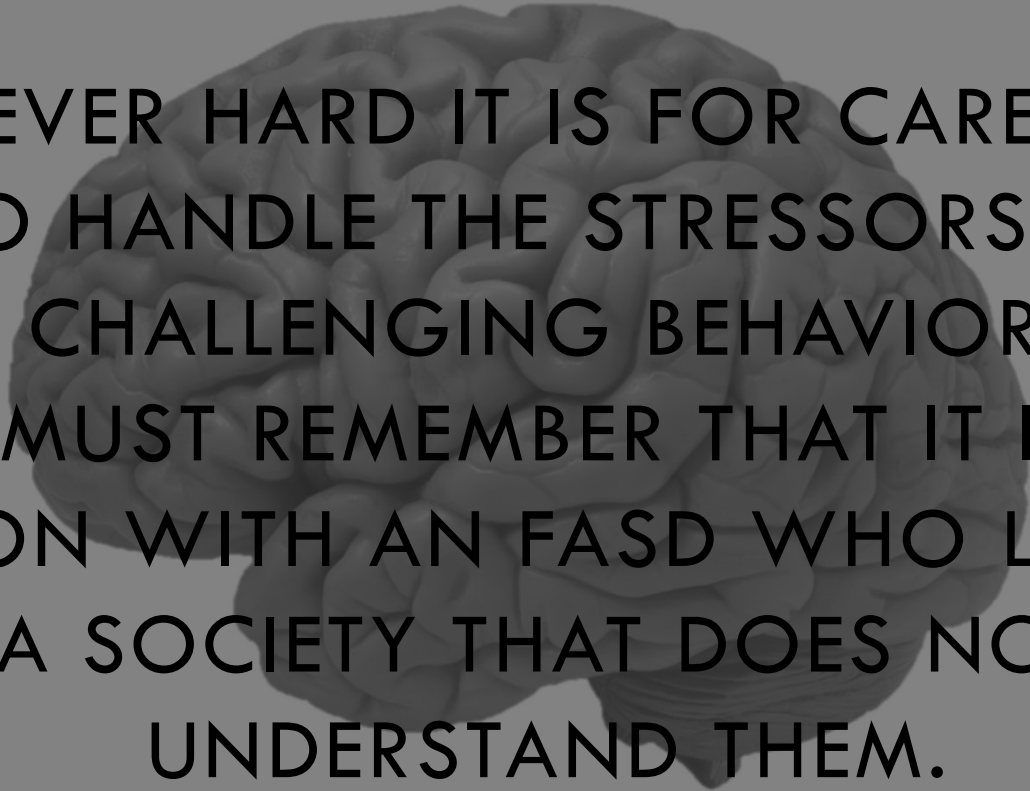
- It can be *emotionally* difficult
- They seem to get it, but then behavior doesn't change
- They may personally attack you when they are upset
- They seem manipulative and intentional in misbehaviors
- We can forget how hard it is for *them*
- Systems and therapy frequently unhelpful





WHY IS IT HARD TO SUPPORT A PERSON WITH AN FASD?

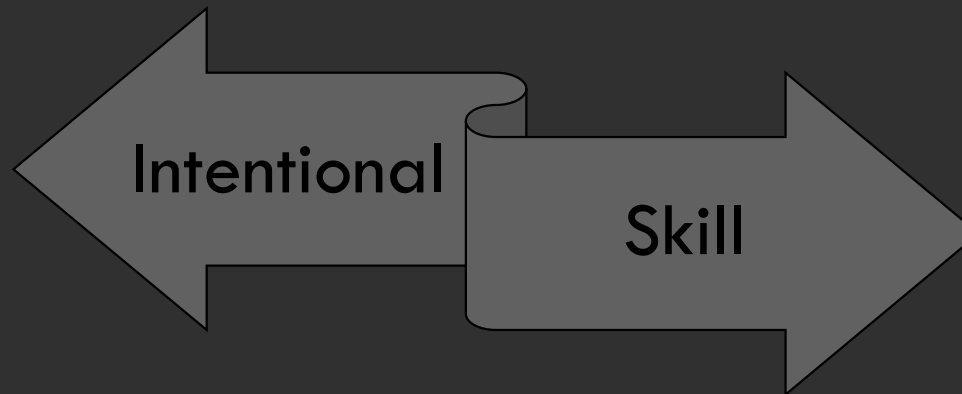
- It's *practically* difficult
 - They may need constant/inconsistent supervision just to meet basic expectations
 - They may resist supports in order to appear “normal”
 - It's difficult to meet their needs
 - School services
 - Therapy services
 - Staffing/respite services



HOWEVER HARD IT IS FOR CAREGIVERS
TO HANDLE THE STRESSORS OF
CHALLENGING BEHAVIOR,
WE MUST REMEMBER THAT IT IS THE
PERSON WITH AN FASD WHO LIVES IN
A SOCIETY THAT DOES NOT
UNDERSTAND THEM.

"Your explanation guides your intervention." – Dr. Ross Greene, "The Explosive Child"

- Punishments
- Rewards
- Lectures
- "Why, why, why?"
- Suspensions
- Displacement
- Arrest



- Proactive
- Accommodation
- Think differently
- Empathize
- Learn
- Work together
- Advocate



**“Your explanation
guides your intervention.”**
– Dr. Ross Greene, “The Explosive Child”

When we reframe challenging behaviors, it...

- Makes things easier emotionally
- Allows us to problem solve
- Helps the person understand what’s going on
- Is more accurate than our “gut” feelings



Traditional

Children learn “acceptable” behaviors when their good behavior is **REINFORCED** and when bad behavior is **PUNISHED**.

When a child or teenager refuses to do something, it's because they want to be in **CONTROL** or **GET WHAT THEY WANT**

When children or teens have bad behaviors, it's a reflection of their **CHARACTER** or their **PARENTS' abilities**

“Challenging behaviors” often happen when someone is expected to use **COGNITIVE SKILLS** they do not have or cannot access

Children and adults with FASDs want to be successful, but they need supports to do so in a society that misunderstands them

Skills are learned when expectations, interactions, other situations are appropriately supported



**Can't vs.
Won't**

FASD Impacts Cognitive Skills

- Processing verbal language
- Executive Functioning differences or struggles
 - Emotional Regulation
 - Attention
 - Working Memory
 - Planning
- Processing Speed
- Memory issues
 - “Short-term” memory
 - Long Term Memory
 - Memory distortions





Research suggests that parents who **understand the brain-based reasons** for behaviors are more likely to:

- Use **proactive** strategies
- **Feel more successful** in their parenting

(Petrenko, Pandolfino, Roddenbery)

Traditional Strategies and Cognitive Skills



Making a verbal plan with alternatives to behavior/coping skills

- Too abstract
- Likely does not understand all that is said
- Memory distortions
- Using the plan “in the moment”
- Lack of success interpreted as lack of compliance



Signing a “contract” promising to stop engaging in challenging behaviors

- Does not consider why a behavior is happening
- “Try harder” with no real supports
- Lack of success interpreted as lack of compliance



Points and reward systems (a.k.a. “Yeah, Good Luck with That” plans)

- Often enthusiastic to do well
- Doesn’t provide support “in-the-moment”
- Long-term incentives often don’t work
- Lack of success interpreted as lack of compliance



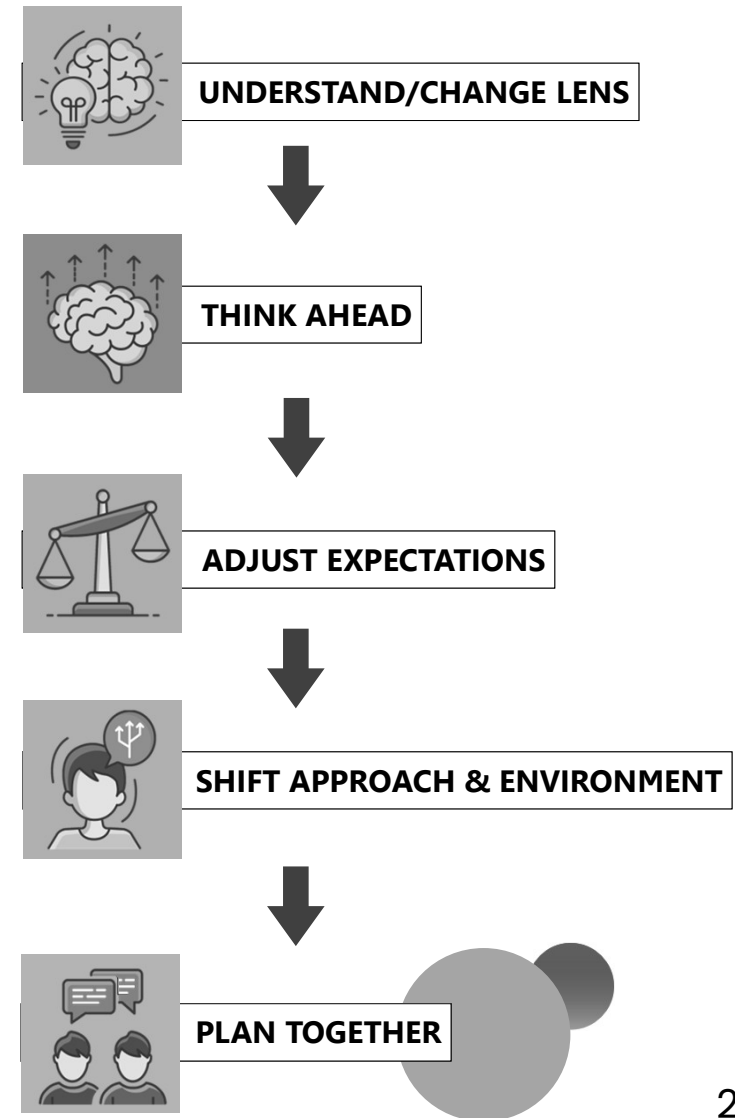
Cognitive Supports™

LINKING COGNITIVE SKILLS TO LEARNING & BEHAVIOR

Cognitive Supports™

[kog-ni-tiv suh-pohrts]

1. Shifting expectations or interactions with a specific cognitive skill in mind.



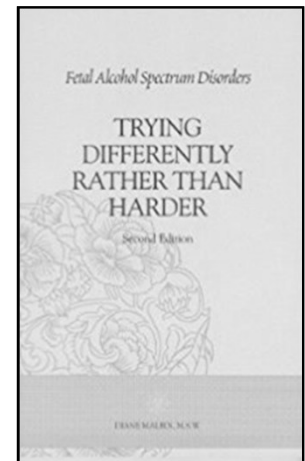
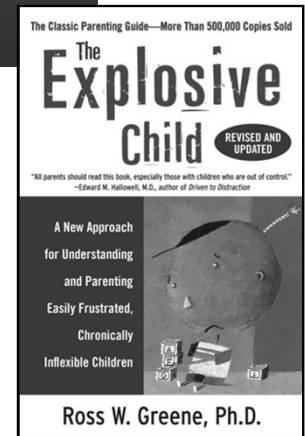
Where Does Cognitive Supports™ Come From?

Collaborative and Proactive Solutions (CPS)

- “The Explosive Child” (Ross Greene)
- Behaviors are the result of “lagging skills”
- Collaboration (“Plan B”) allows us to identify the person’s concerns and solutions

Neurobehavioral Model

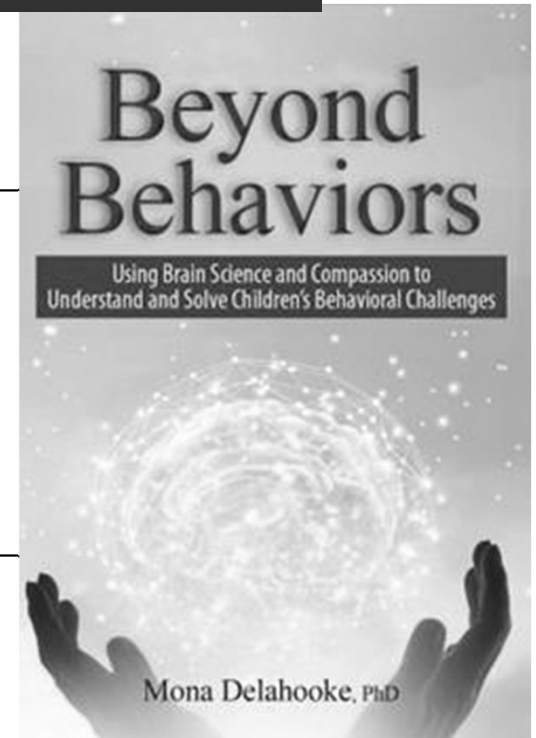
- “Trying Differently Rather than Harder” (Diane Malbin)
- FASD's are the result of neurobiological brain changes caused by alcohol
- We need to adjust expectations and remember how FASD's impact the brain, and make sure our solutions work with a person's cognitive skills set



Where Does Cognitive Supports™ Come From?

Polyvagal Theory

- Developed by Dr. Stephen Porges
- “Beyond Behaviors” by Dr. Mona Delahooke’
- Stress and trauma—in addition to many other factors—contribute to cognitive skill struggles and ongoing behaviors





It's About More than "Behavior"

Cognitive Supports help a person learn, connect, and self-regulate in *many* contexts. It is about helping people live *life*, not a way to control or modify behaviors.

Jealousy or...?

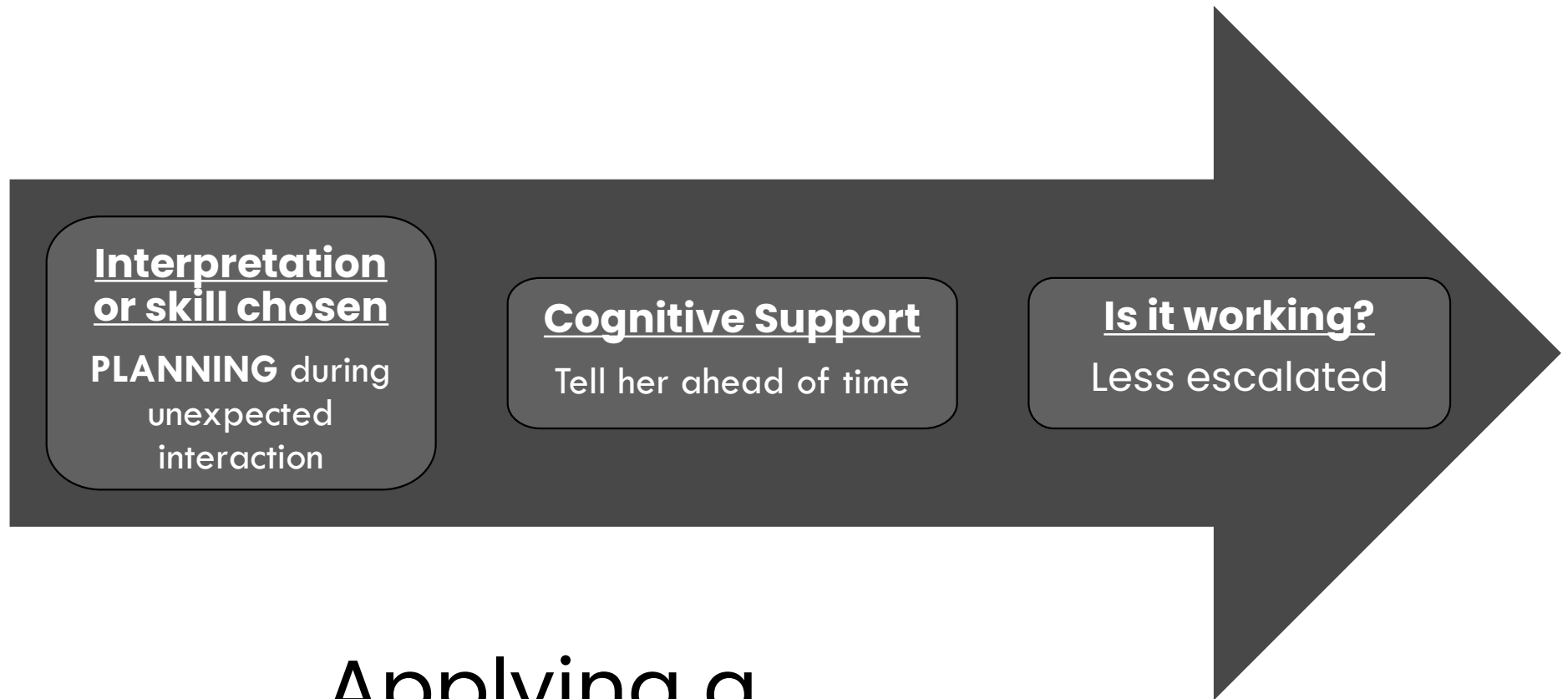
Traditional Interpretations

- Sees sibling get attention, and wants attention for herself
- Doesn't like seeing other people be successful, and so she escalates due to jealousy

Cognitive Skill Interpretations

- Compliments are “out of nowhere”, and she struggles to adjust to unexpected events (Transitions & Adjusting)
- She misinterprets compliments toward her siblings as negative statements against her (Perception)
- She is struggling with sensory dysregulation, and it hurts when someone unexpectedly talks

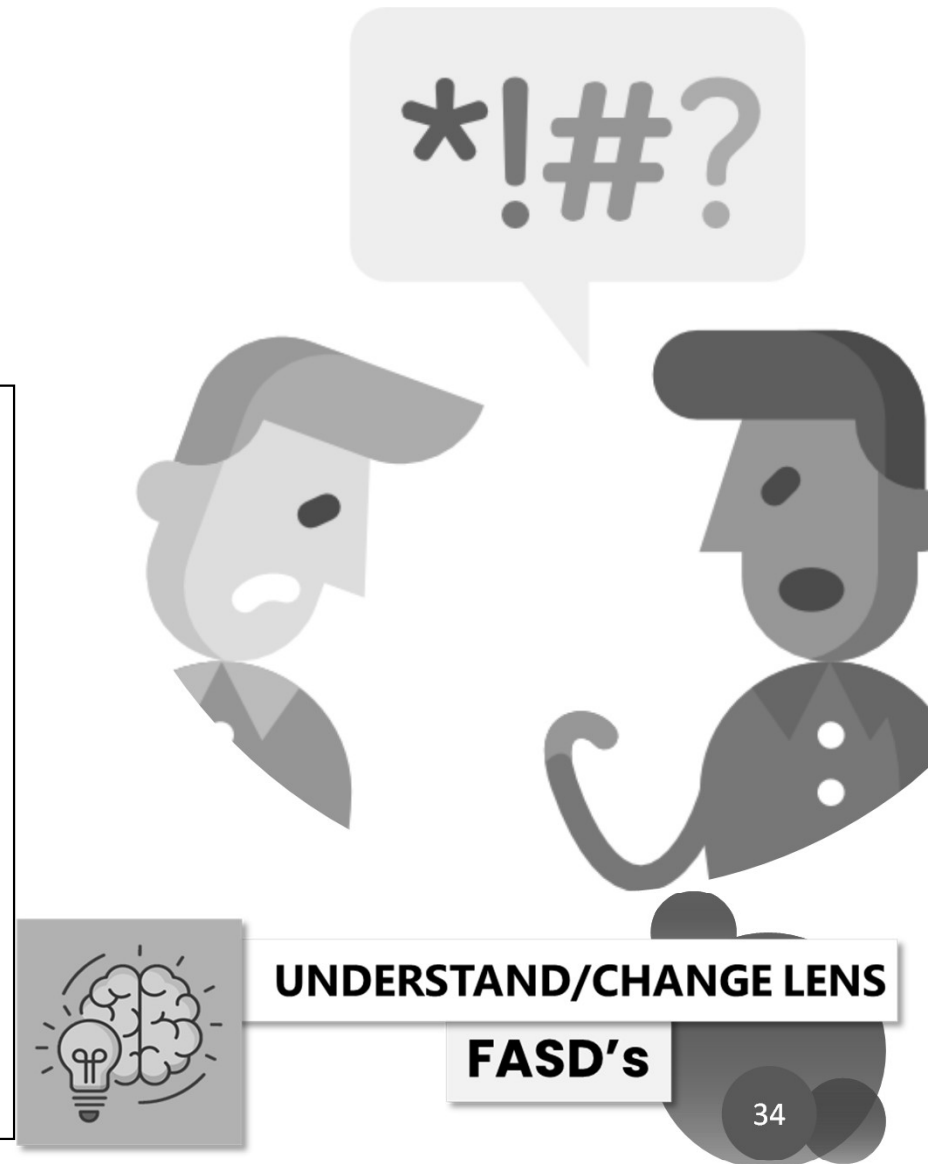




Applying a Cognitive Support

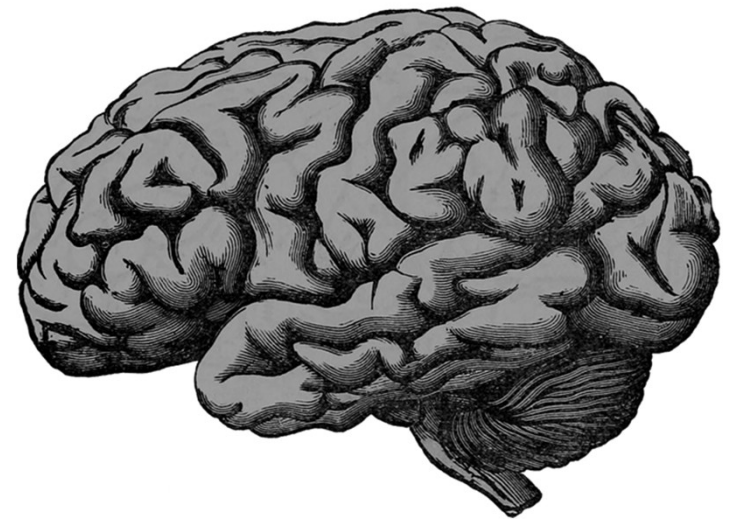
From the outside, we see behaviors, risks, and struggles:

- Impulsive behaviors
- “Lying”
- “Stealing”
- Risk-taking
- Inability or refusal to stick to a task/start a task
- Refusal to do schoolwork
- Emotional regulation challenges
- Struggles in interactions with peers
- Difficulty sustaining relationships
- Illegal behaviors



What We Can't See (The Brain)

- Slow processing speed
- Not catching all/forgetting what is said
- Brain doesn't think about consequences
- Body moves before brain can think
- Oftentimes desperate to appear "normal"
- Brain "gets stuck", can't process the same way each time



UNDERSTAND/CHANGE LENS

FASD's



UNDERSTAND/CHANGE LENS

Cognitive Skills Filter

Every **situation**, **expectation**, and **interaction** ***demands*** cognitive skills.

SITUATION

RECIPE

Having friend over

Needed Skill Ingredients

- Attention span
- Distraction resistance
- Impulse control
- Emotional regulation
- Flexibility
- Shifting/Transitioning
- Abstract thought
- Sensory regulation
- Planning/problem-solving
- Processing and shifting to social cues

EXPECTATION

RECIPE

5 minutes of homework

Needed Skill Ingredients

- Attention span
- Distraction resistance
- Impulse control
- Self-monitoring
- Shifting
- Abstract thought
- Problem-solving
- Emotional regulation
- Reading
- Writing
- Recall

INTERACTION

RECIPE

3-minute talk with parent

Needed Skill Ingredients

- Emotional regulation
- Shift and transition
- Attention
- Receptive communication
- Distraction resistance
- Impulse control
- Flexibility
- Abstract thought



UNDERSTAND/CHANGE LENS

Cognitive Skills Filter

The Cognitive Skills Filter Helps Us Re-Frame

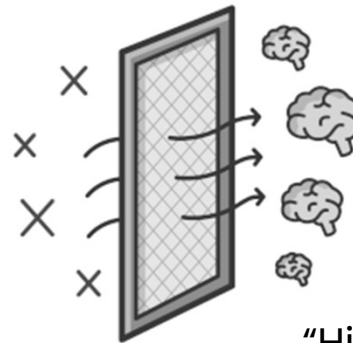
Traditional Terms & Interpretations

"He won't keep his hands to himself."

"She lies because it causes drama."

"He's such a jerk!"

"They just don't want to do schoolwork."



Cognitive Skill Possibilities

"He is not thinking before he touches other people."

"Her brain confabulates additional details, causing confusion."

"His brain cannot regulate his stress right now. This isn't about me."

"Their executive functioning fuel is out right now."

Focusing on the “Little Moments”



UNDERSTAND/CHANGE LENS

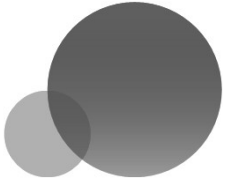
Cognitive Skills Filter

WHEN WE DO

- It helps us understand what the person is going through
- That understanding allows us to think practically
- We can take a “problem-solving” angle and include the person
- We try different supports and don’t worry about failing
- We remember it’s a brain thing, not the person being a little...well, *you know*

WHEN WE DON’T

- We continue to hold the person to expectations that they cannot meet
- We blame *them* for failing to meet the unreasonable expectations
- We often establish a negative interaction pattern, making collaboration difficult
- We look for solutions that don’t actually solve the in-the-moment cognitive struggles



Break?



Neuroception & Connection

**CONSIDERING TRAUMA AND STRESS
BEFORE MOVING FORWARD**



SUPPORT SAFETY & CONNECTION

Everyone's brain learns, reacts, or responds in tiny timeframes—milliseconds of seconds

It only takes a moment for something to become too stressful or too demanding on the brain

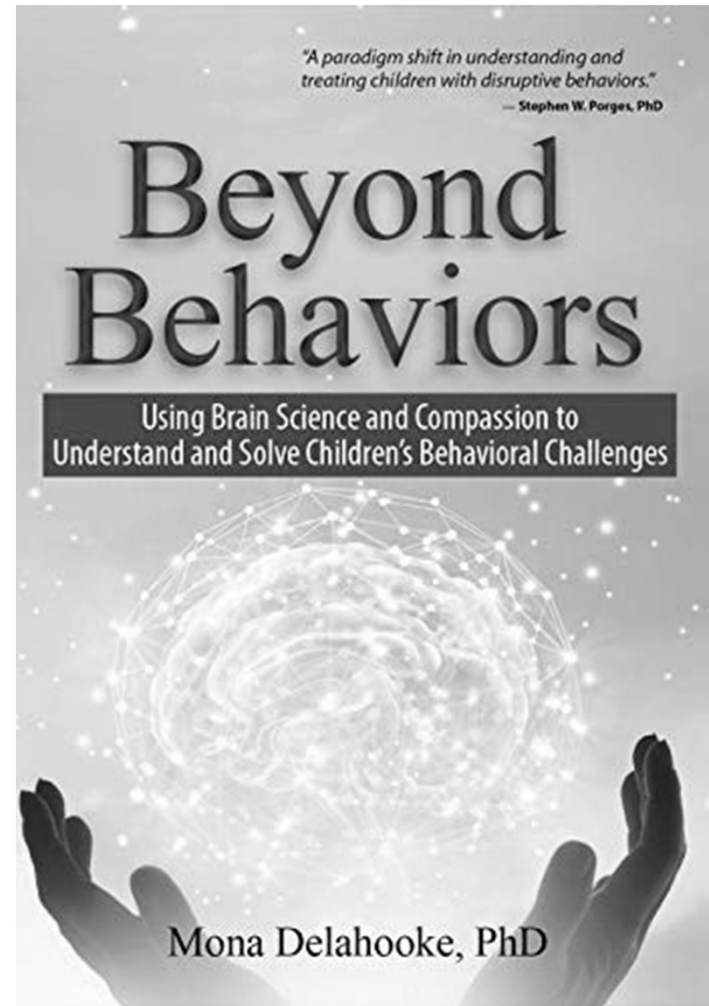
Overtime, this leads to resistance and, potentially, unsafe neuroception



UNDERSTAND/CHANGE LENS

Cognitive Skills Filter

Important Resource



Neuroception

- **Our brains continuously assess our safety**
- **The processes to do this are out of our direct control (autonomic system)**
 - They are developed in utero and used when we are born
- **In the first days/months of life, our brains learn the environment and neuroception develops**
- **Safety and connection with adults promote neuroception development in one way, stress and trauma promote a different way of adapting**
- **Neuroception directly impacts our overall brain development**
- **Neuroception is a critical concept in Polyvagal Theory, conceived by scientist Dr. Stephen Porges**

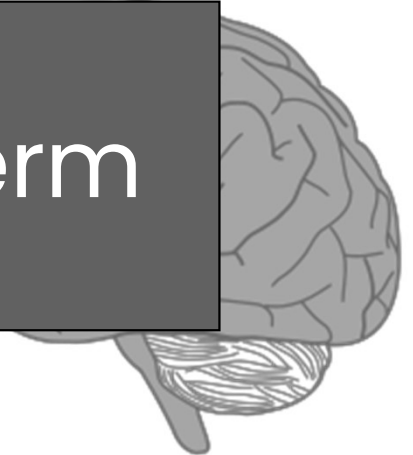
**Neuroception is our
“bottom” brain’s
sense of safety to the
environment, to
situations, and to people.**



Neuroception

Moment-to-
moment

Long-term



Safe Neuroception

IN THE MOMENT

- We can interact warmly with others (connection)
- Our bodies feel relaxed and calm
- We can co-regulate with others when things go wrong
- We can learn

THE BIGGER PICTURE

- We move through developmental processes
- We are eventually able to use advanced (“top-down”) thinking processes
- We build our own personal coping skills

Unsafe Neuroception

IN THE MOMENT

- We are defensive
- Our body feels anxious/scared
- Our autonomic system activates a defensive state (pathways)
- We resist/reject interaction and reject connection
- We can't use our executive functioning skills
- We engage in "challenging behaviors" ("bottom up" behaviors)

THE BIGGER PICTURE

- Our movement through developmental process is stalled, delayed, or inconsistent
- We struggle with relationships
- Our cognitive skill development is delayed
- We have ongoing challenging behaviors and have no coping skills
- We cannot talk about our behaviors abstractly ("top-down" thinking)

**Early childhood
trauma and stress
create unsafe
neuroception.**



Unsafe Neuroception

- Unsafe neuroception is GOOD when we are actually in danger/distress
- We have “**faulty**” **unsafe neuroception** when our brains sense a threat when there *isn't* one.
- Our “bottom brain” structures recognize sensory cues in the environment and have implicit memories *dual-coded* with negative emotions. This causes a **physiological, subconscious, defensive response**.
- Our nervous system responds the same way to these situations as if would if there is actual danger: fight, flight, or shutting down (and a few others)





Unsafe Neuroception

There are many triggers to **unsafe neuroception** in children and adults who have been through early trauma:

- Body sensations/sensory information (e.g. smells, stomachache)
- Tones of voice
- Familiar physical environments
- Certain words/phrases
- Types of people
- Stress of many types (sometimes *any type*)

FASD's and Trauma

For many reasons, people with FASD's are more likely to come from a history of early childhood trauma and stress. This includes experiences of:

- Early medical issues/hospitalization
- Neglect
- Physical abuse
- Sexual abuse
- Emotional abuse/neglect
- Homelessness
- Witnessing violence/drug use
- Removal from biological family
- Multiple caregivers/foster home placements
- Ongoing stress due to challenging behaviors
- Ongoing sensory dysregulation



**It is important to consider
if
unsafe neuroception
is a factor before trying
behavior interventions or
approaches.**

Unsafe Neuroception Clues

Continual sensory dysregulation

Frequent oppositional behaviors

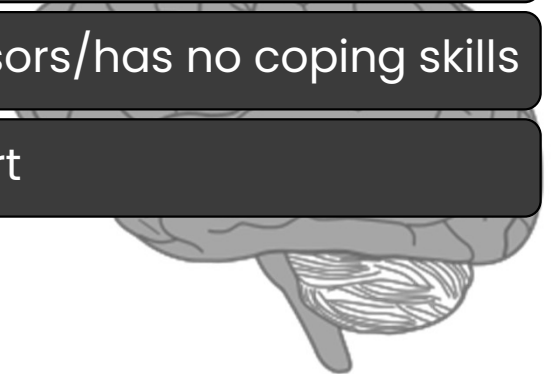
Easily reactive to people/situations

Escalates multiple times per day

“Shuts down” frequently

Overreacts to small stressors/has no coping skills

Rejects reasoning/comfort



Lens Change:
***Diagnosis vs.
Neuroception***

Reactive Attachment Disorder (RAD)

Oppositional Defiant Disorder (ODD)

Adjustment Disorders

Anxiety

Disruptive Mood Dysregulation Disorder

Intermittent Explosive Disorder

Pathways

- In Dr. Delahooke's book, she describes our autonomic states in terms of COLOPS
 - These colors are **not** meant to teach children, but for us as the supporters
- These states are not determined by our advanced cognitive skills, but are determined by our brainstem—the oldest, most primitive structures in the brain
- Our **neuroception** (safe or not) is a primary factor in which pathway we are on

Green Pathway (Ventral Vagal System; 200 million years)

Adapted from “Polyvagal Flipchart” by Dr. Deb Dana, PhD



- Above the diaphragm: ventral vagus
 - Involves “heart, lungs, pharynx, and larynx”
 - Allows for co-regulation and self-regulation
 - Seek out/offer support
 - Resourced and resourceful
 - The vagus and nerves in the face and head connect, controlling:
 - Facial expressions, eye gaze, middle ear processing (human voices), vocalizing, swallowing, breathing

Green Pathway (Ventral Vagal System; 200 million years)

Adapted from “Beyond Behaviors” by Dr. Mona Delahooke, PhD



- Supports “social engagement” and connection “**under the condition of safety**” (Delahooke, 49)
- Allows children to learn and play
- Eyes are bright, shiny, engaged, alert
- Body is relaxed, stable, balanced, alert to the environment
- Face smiles, is neutral, shows range of emotions as appropriate
- Laughs, voice tones changes
- Movements are “not too fast or too slow” (51)

Red Pathway

(Sympathetic Nervous System; 400 million years)

Adapted from "Polyvagal Flipchart" by Dr. Deb Dana, PhD



- Regulates heart and lungs
- A system that originates in the spinal cord, and “works with the [Green Pathway] to bring needed energy to navigate daily activities.”
- **Mobilizes** us to survive
- Feel out of sync with others
- Driven to get needs met
- Alarmed, anxious, hypervigilant, misread cues, “sacrifice social engagement for survival”

Red Pathway

(Sympathetic Nervous System; 400 million years)

Adapted from "Beyond Behaviors" by Dr. Mona Delahooke, PhD



- “Fight or flight” response
- Oppositional
- Face is wide and mouth open, angry, clenches or fake smile (Delahooke, 52)
- Eyes are open, squinted, or closed. Eye-contact may be intense or darting around the room.
- Fingers spread out, arched back, constant motion, hitting, bumping into things, pushing, space-invading
- High-pitched yelling, loud, hostile, laughing
- Fast movements

Blue Pathway (Dorsal Vagal; 500 million years)

Adapted from "Polyvagal Flip Chart" by Dr. Deb Dana, PhD



- *Below the diaphragm: dorsal vagus.*
 - *Connect with "stomach, liver, spleen, kidney, colon, and intestines"*
 - *Responsible for the digestive system*
- When in survival mode, the body goes into a *conservation* mode
 - Creates a sense of "disconnection, numbing, collapse, a sense of going through the motions without being present."
 - "Disappear into a state of not knowing, not feeling, not being."

Blue Pathway (Dorsal Vagal; 500 million years)

Adapted from "Beyond Behaviors" by Dr. Mona Delahooke, PhD

- Shutting down
- Glazed eyes, looking down or away, not alert
- Looks at things more than people
- Seems tired, moves slowly, slow to get moving
- Face is flat/blank, looks sad
- Sounds "cold, soft, sad, too quiet" (Delahook (53)
- Body is slumped/slouching, little play/curiosity, wandering around, frozen
- Looks overwhelmed or uninterested



Neuroception

“Inability to calm defense systems in safe environment leads to habitual hypervigilant alarmed state.”

“Inability to activate defense systems in a risk environment leads to inadequate response either dulled and unaware or high risk taking.”



From Polyvagal Flip Chart by Deb Dana

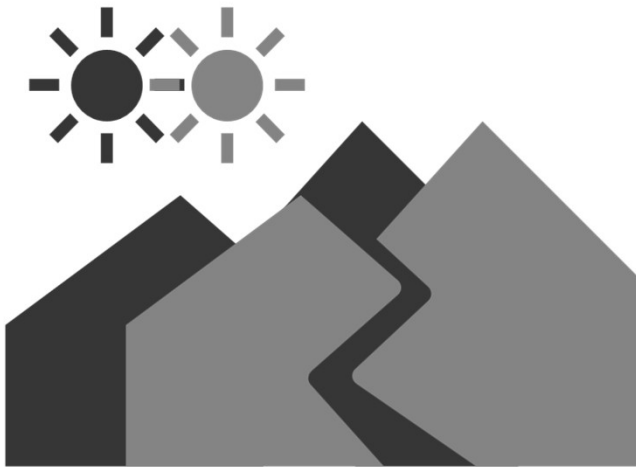
- The **Green Pathway** is a “system of safety and connection”
- The **Red Pathway** is a “system of mobilization” (fight/flight)
- The **Blue Pathway** is a “system of immobilization.” (shut down)

All evolved to help with survival.

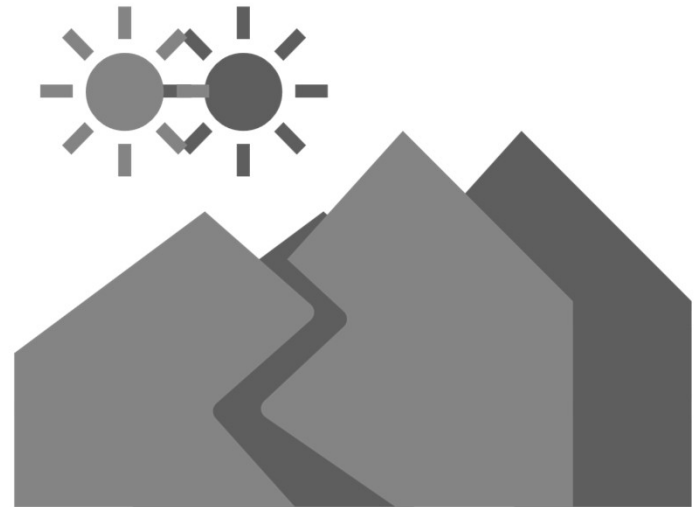
All are ***autonomic states***.

Mixed Pathways

Adapted from "Polyvagal Flip Chart" by Dr. Deb Dana, PhD



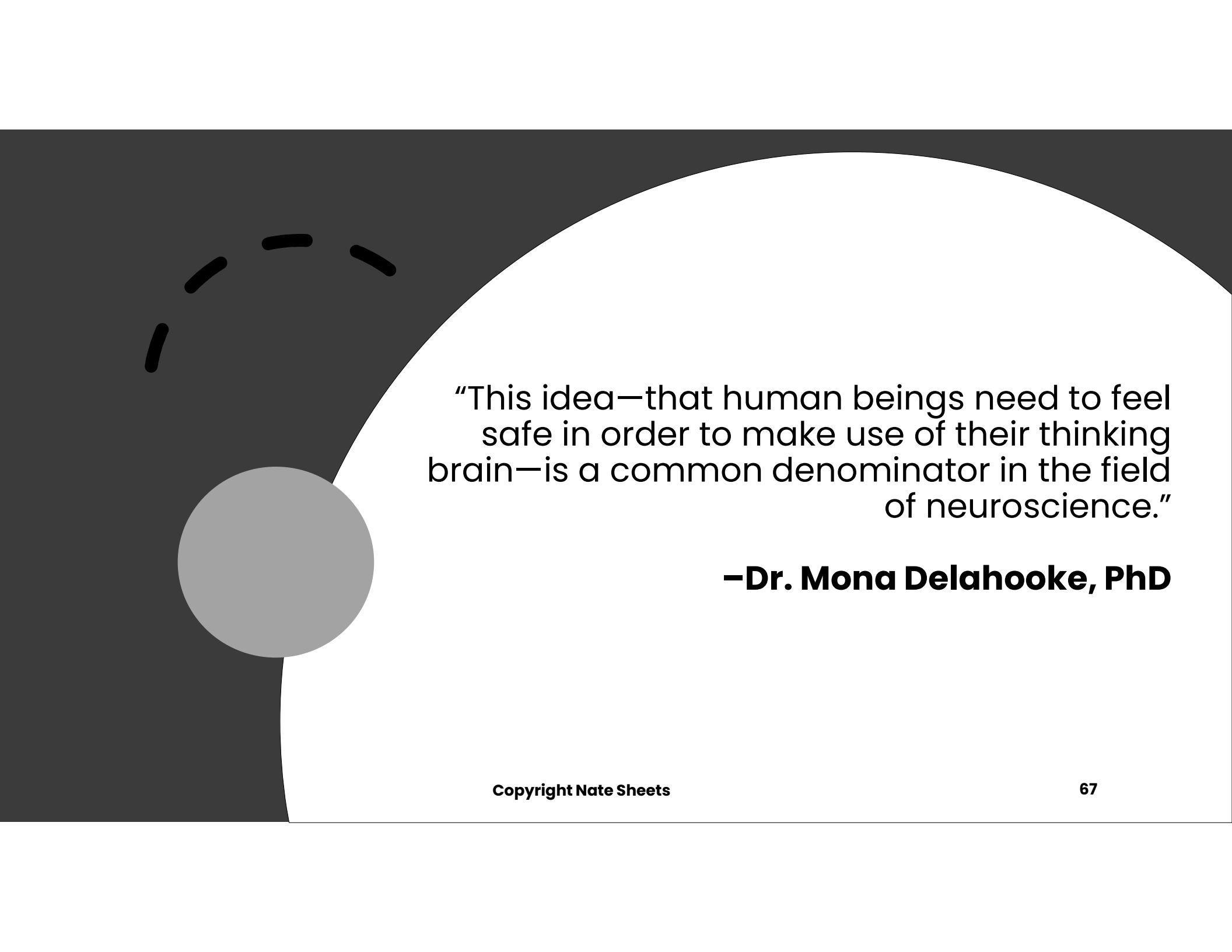
- Play
- Competition
- Exercises the “vagal brake”
- “Strengthens the ability to move between activity and calm.”
- Practiced or safe moment of stress



- Stillness/snugness
- Being still “without being pulled into shut down”
- “Supports experiences of intimacy and social behaviors which require stillness”

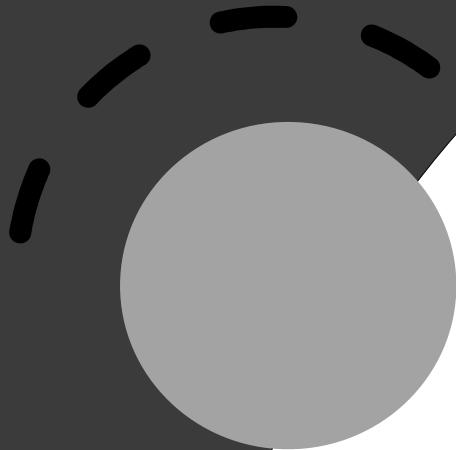
Which Pathway?

- It is important to monitor our child (and ourselves) in terms of which pathway the autonomic states are in
- Saying, “But I tell them they are safe!” misses the point.
 - So does “But they *are* safe.”
- **Unsafe Neuroception** will send our child onto a **Red** or **Blue** pathway
- If we only look at observable behaviors, we **will** misinterpret
- Learning *cannot* happen when a person is in the Red or Blue pathway.



“This idea—that human beings need to feel safe in order to make use of their thinking brain—is a common denominator in the field of neuroscience.”

–Dr. Mona Delahooke, PhD



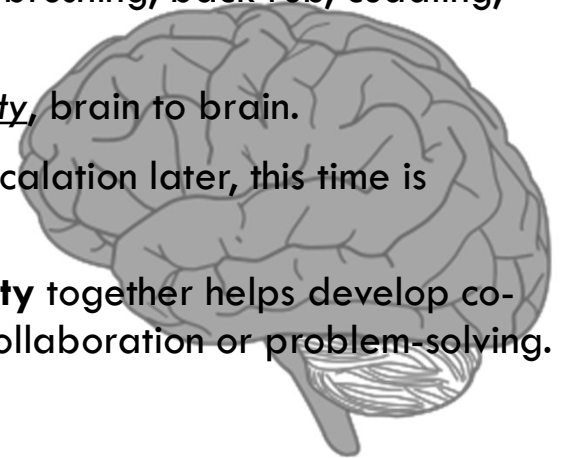
Priorities for Stressed/Dysregulated Kids

- 1) Connection
- 2) Co-Regulation
- 3) Sensory Supports
- 4) Cognitive Supports™

Prioritizing Connection (Connection Time)



- Each major supporter should have **daily** connection
- One-on-one whenever possible
- Have a goal of 5 minutes if you cannot devote more time.
- Must be easy! No games or conversations that could trigger stress or unsafe neuroception.
- Sensory activities can be good: hair brushing, back rub, cuddling, reading together.
- The goal here is to send cues of safety, brain to brain.
- Even if there is dysregulation and escalation later, this time is valuable.
- Successful time in **neuroceptive safety** together helps develop co-regulation, and paves the way for collaboration or problem-solving.



In-the-Moment Neuroception Supports

Our Faces/Voices

- Use a soft and warm tone, even if it takes effort
 - This means you need to stop and think before talking!
- Speak slowly and model thinking
- Have warm eyes and expressions

Our Bodies

- Don't stand over them. Move slowly
- Give space when needed, physical affection when needed
- Lean back, keep engaged and looking at them

Our Demands

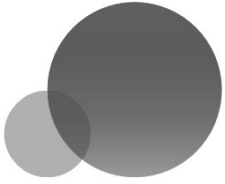
- Focus on soothing first, talking later
- Avoid too much verbal
- Adjust expectations during dysregulation
- Give 1:1 help if that helps with expectations/regulations

Breakout Groups

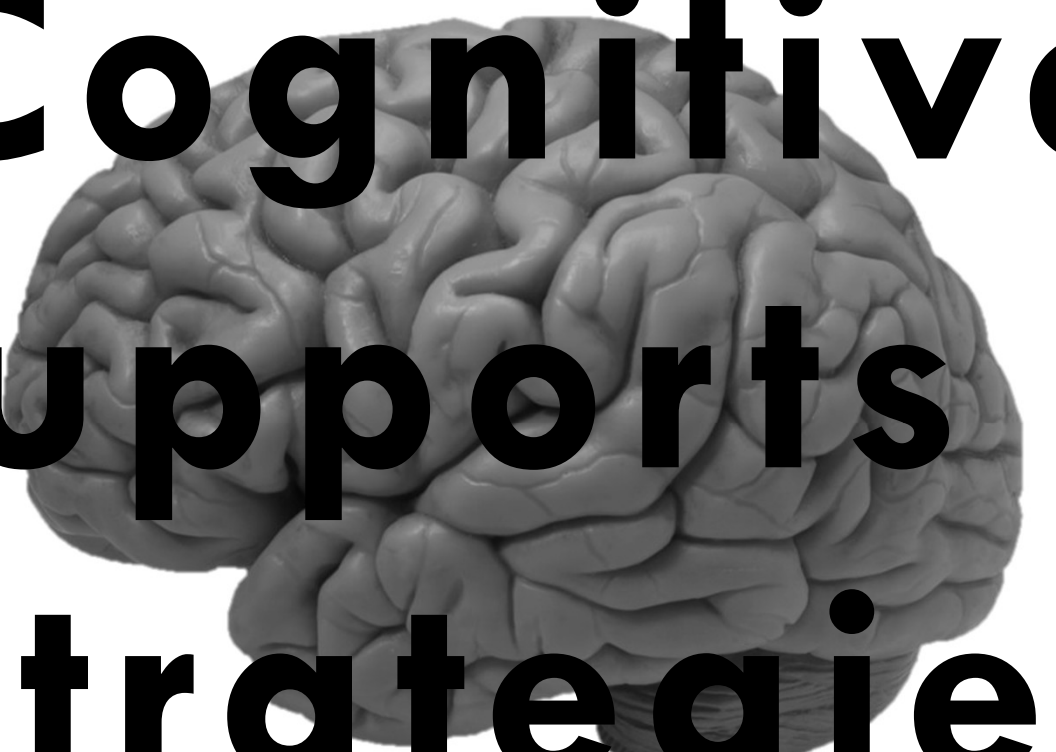
*Please keep **confidentiality** in mind and do not share identifying information about anyone. Stick to using **initials** and **general descriptions**. If you cannot share because you are in ear shot of someone, show the “peace” sign or say “I feel like an orange”.*

Please be mindful about how much time is left and allow each person in the group to share.

- Introduce yourself (Name, where you are from, age groups you support)
- Which elements of **trauma, stress, or unsafe neuroception** do you feel are the most applicable to the person you’re thinking about today?
- What are some **changes, steps, or adjustments** you can make right away? What, if anything, complicates making changes to improve safety and connection? (e.g. multiple children, loud noises, etc.)
- Does anyone in the group think that unsafe neuroception is *not* a factor for the person they support? Has that always been the case? If not, how did the person’s neuroception and regulation improve? (e.g. specific supports?)



Break?



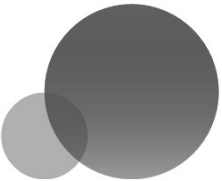
Cognitive Supports & Strategies

**EVERYDAY SUPPORTS FOR
EVERYDAY MOMENTS**



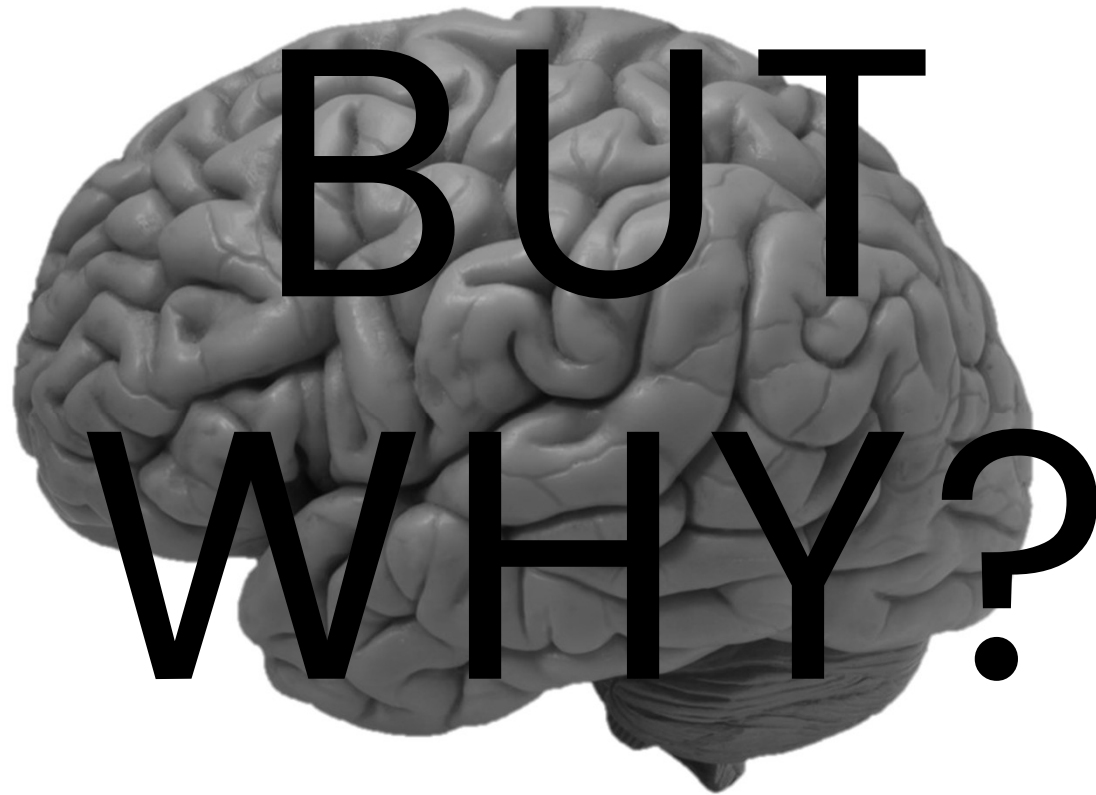
Essential Support #2

GIVE TIME TO THINK



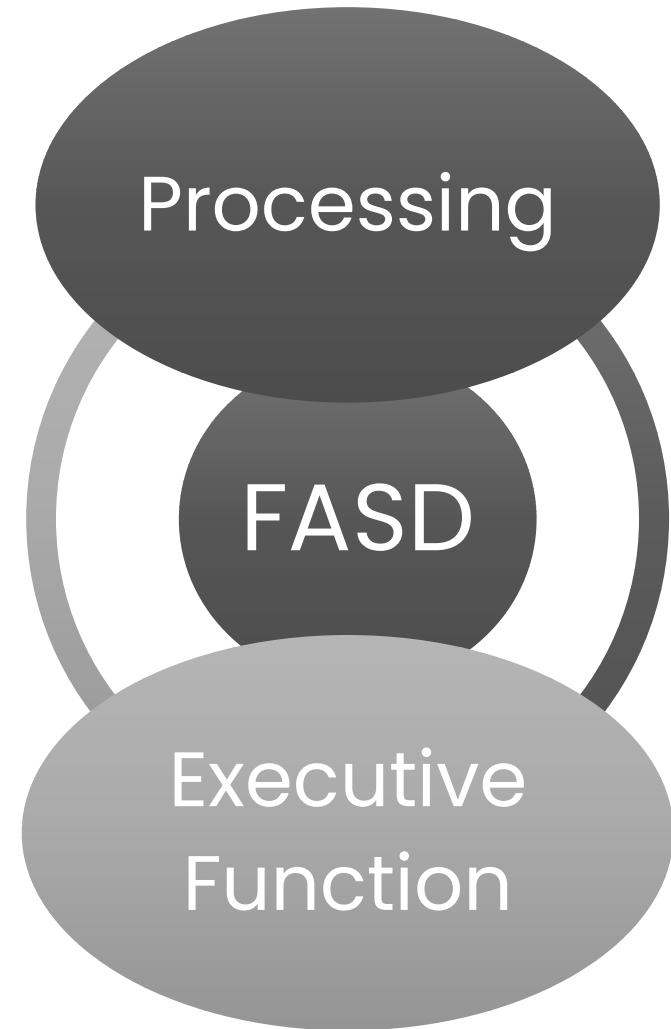
Give time to process.

- This won't be easy!
- 10–60 seconds for “quick” questions/situations.
- 60 minutes or more for “big” or more complex questions/situations.



Processing Verbal Language

- Demands multiple parts of the brain
 - Executive Functioning
 - Processing speed
 - Communication
- *A universal struggle in people with FASD's*
 - Can change depending on the day



Processing/Receptive Communication Difficulties

Are	Isolated	Making
With	Known	Only
Consists	With	Often
Continuously	Points	Graph
Corresponding	Relation	If
Curve	Set	Values
Draws	Table	Variables
Variations	One	

Based on activity by “FAT City Workshop”

Fingerspelling

Is it easy to read fingerspelling?

- What would make it easier?
 - Going slower (much slower!)
 - Having it written out
 - Using pictures instead of words

Verbal communication is often the *least* effective way to pass information along to a person with an FASD.

Additional Conversation Supports

- Try to go into conversations *prepared* to give time to think.
 - This means stopping for a moment to think about what to say, how to say it, and how to support it.
 - Be aware of impulsively starting interactions or giving directions.
- “Frontload” the time to think:
 - “Don’t answer right away, just think about it.”
 - “In five minutes I’m going to ask you... Take some time to think about it.”
- If you must talk, use simple language
 - Keep common phrases the same
- Repeat what you said *exactly* the way you said it first
 - Re-phrase only after repeating yourself once

Additional Conversation Supports

- Use visuals whenever they are willing
- Split conversations up into smaller parts if it helps with regulation or understanding
- Be OK with them processing slowly, and allow them to change their mind or clarify with you.
- Asking questions is a sign that the person is trying to understand: don't assume they are being defiant.
 - Many neurodivergent people need to know the “why” of an expectation.

Processing Situations

Processing speed is typically slower for people with FASD's

For *some* people, familiar situations/ideas are processed faster than novel information

Time to think is *essential* for slow processors.

- How often are they given it?





Essential Support #3

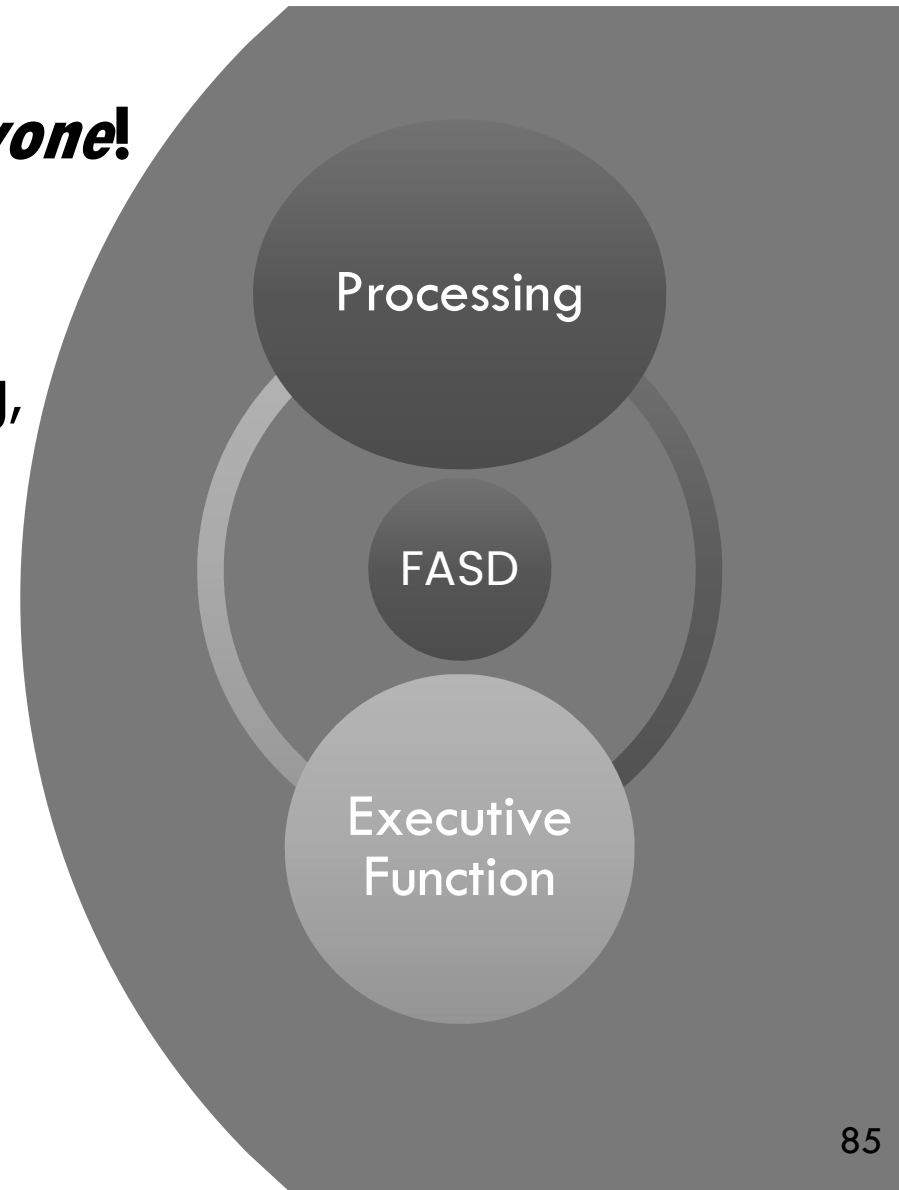
VISUALIZE INFORMATION

Visuals are the best support for *everyone!*
Visuals support many skills at once

Processing, Executive Functioning,
and Memory

We often resist visuals:

They frequently don't work
They take time to make
The person doesn't buy-in



Starting Places—Visuals

Visuals support many different cognitive skills at once!

- **Visuals can be simple!**

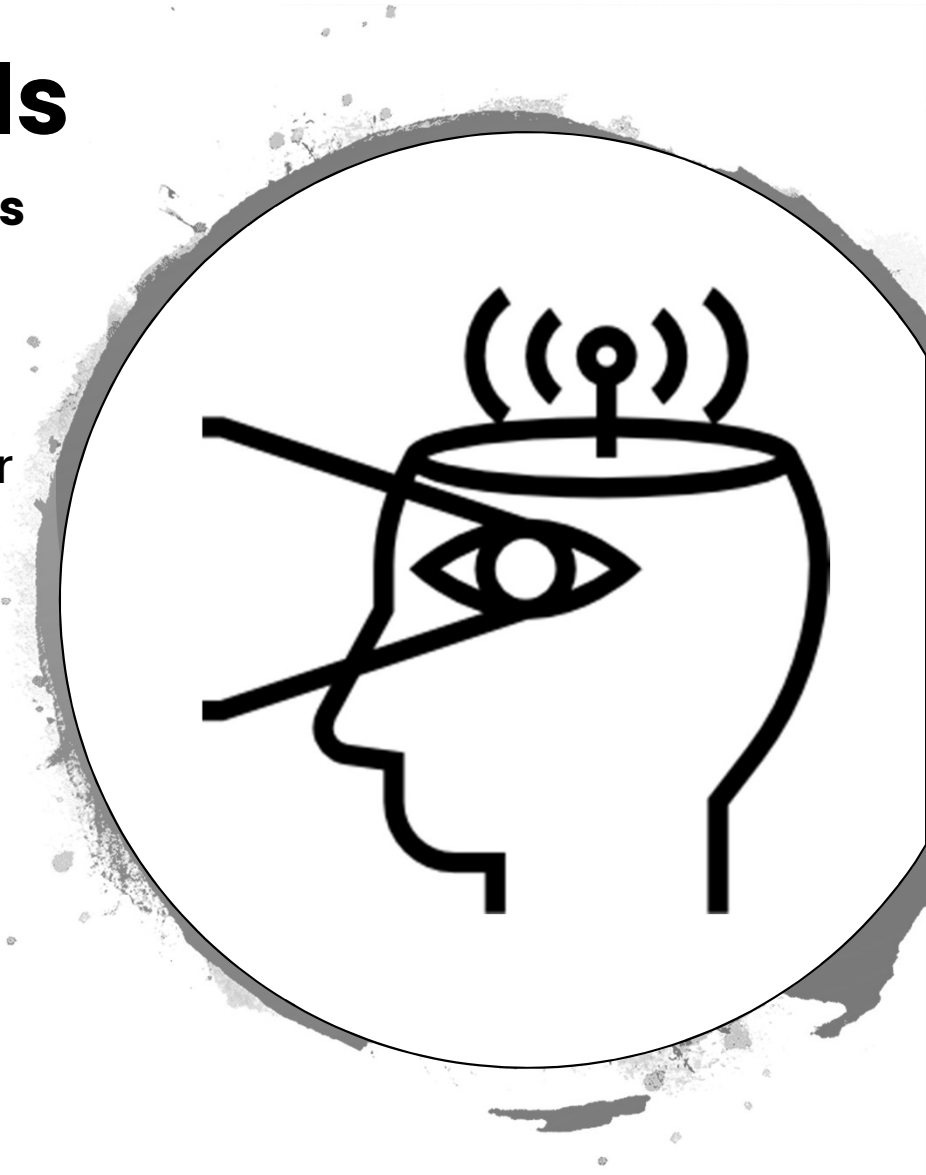
- Texting/messaging
- “Notes”
- Laminated piece of paper/dry erase marker
- Apps

Think of what the visual is supposed to do:

- Remind
- Prompt to transition
- Remember
- Organize
- Be mindful/regulate

Use visuals to help you avoid verbal communication!

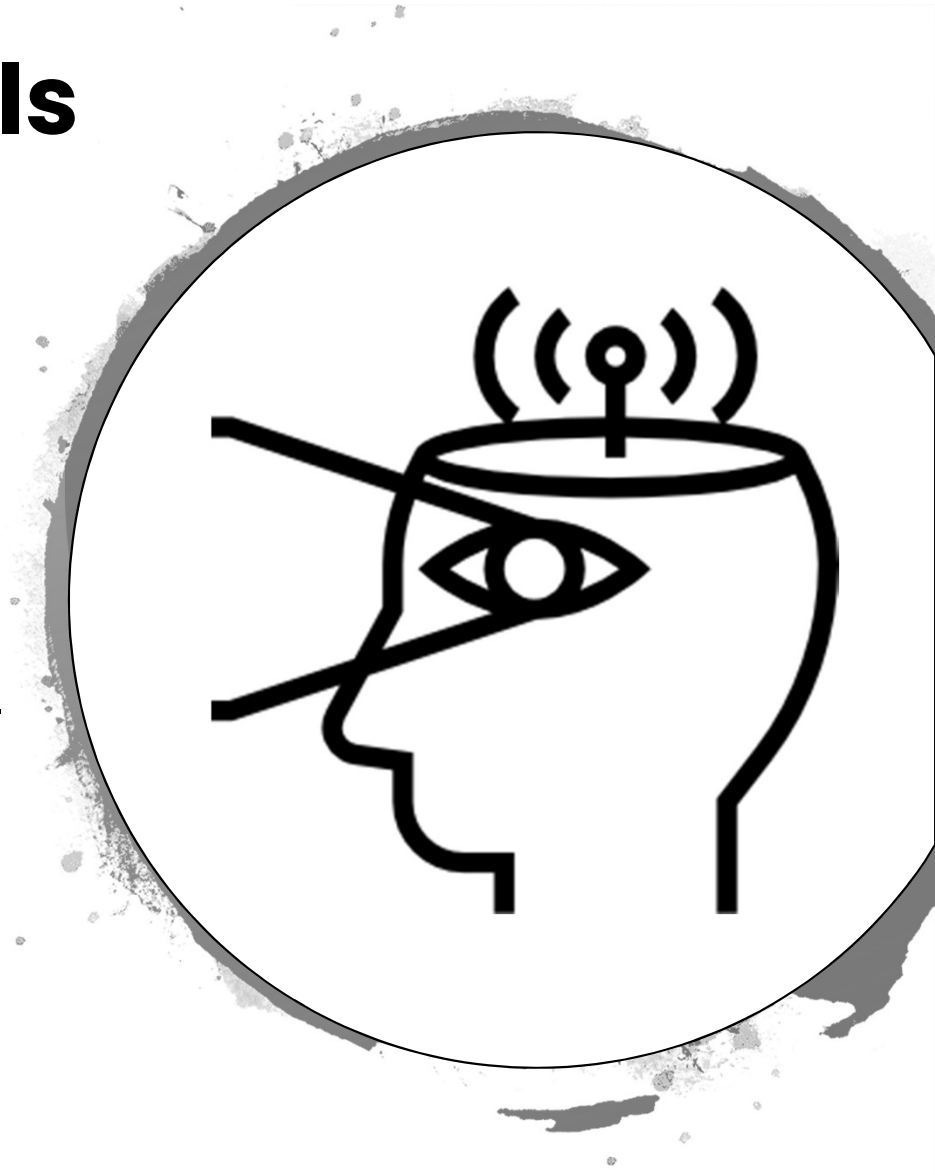
**It's OK to stop talking and switch to a visual.
You will forget!**

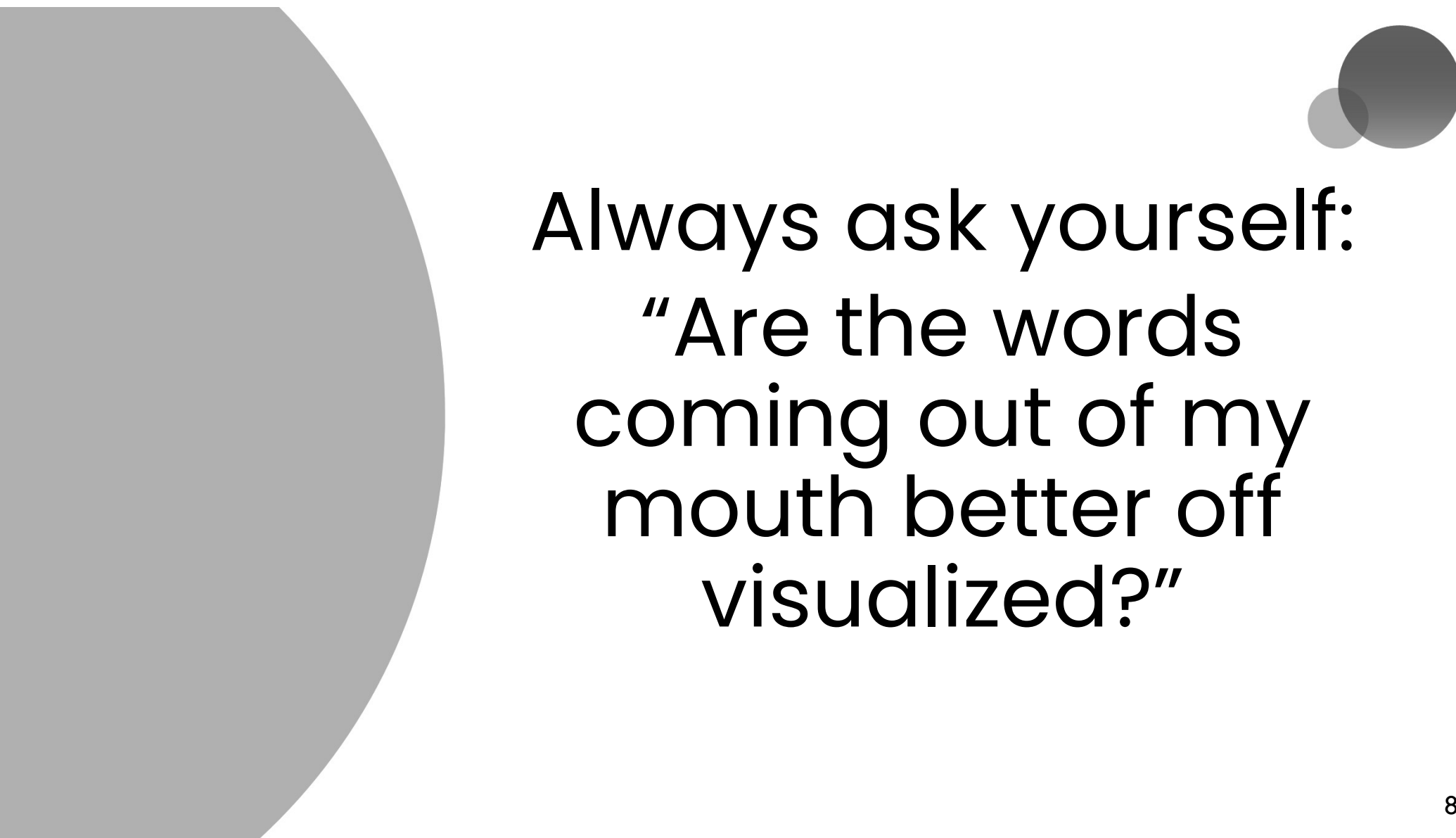


Starting Places—Visuals

Make sure to “build in” an invitation to think.

- “Take a look at this and we’ll talk in 5 minutes.”
- “No worries about answering right now—I’ll give you some time to think.”
- *“Choices” and Visual example*

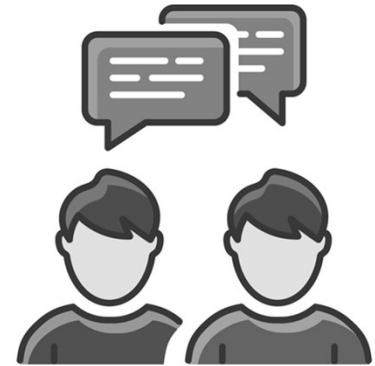




Always ask yourself:
“Are the words
coming out of my
mouth better off
visualized?”

Planning Together

**BRAIN-BASED
COLLABORATION**



Plan Together/Proactive Conversations

- This is the *last* part of the Cognitive Support process that should be put in place.
- BUT! Once you get this in place, it will be the *most effective* way to address difficulties or “challenging behaviors”.
- It will also be a great way to teach skills.



Plan Together/Proactive Conversations

- Like everything else, the Plan Together process also *demand*s that a person have a set of skills.
 - We must provide several Cognitive Supports to make Planning Together conversation effective
 - Not all people are ready or willing to participate
 - They must be *developmentally ready*



Proactive Plans

- Identify the issue BEFORE the situation or activity



When Might an Issue Arise?

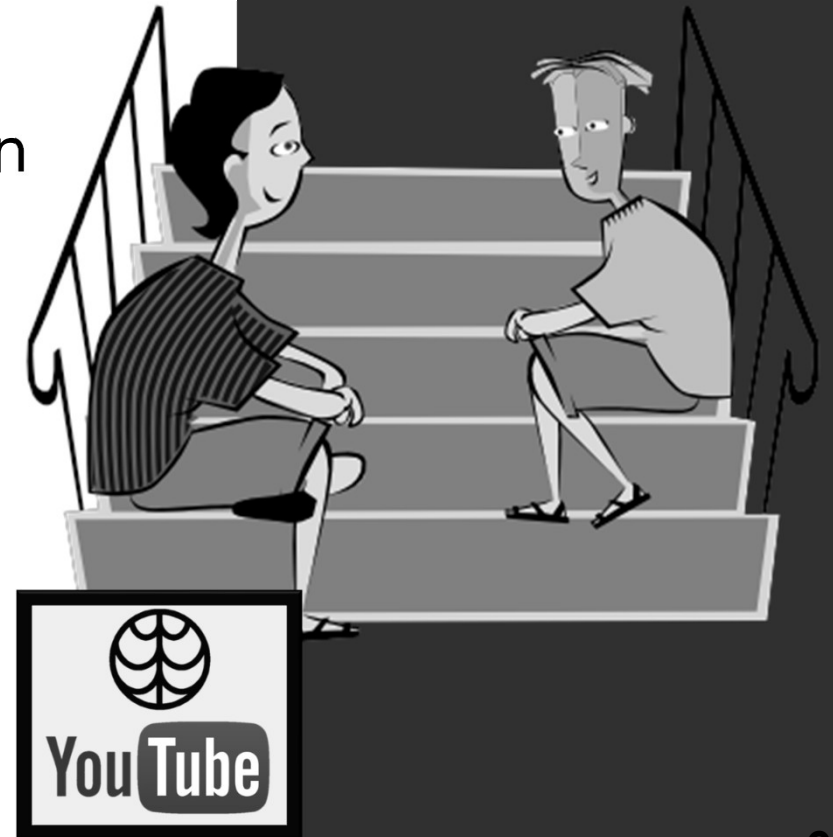
- Going to the grocery store
- Going to school
- Sleepovers
- Church
- Being asked to do a chore
- Being told to stop playing video games
- Going to bed
- Waking up

All the time!



Plan Together Process

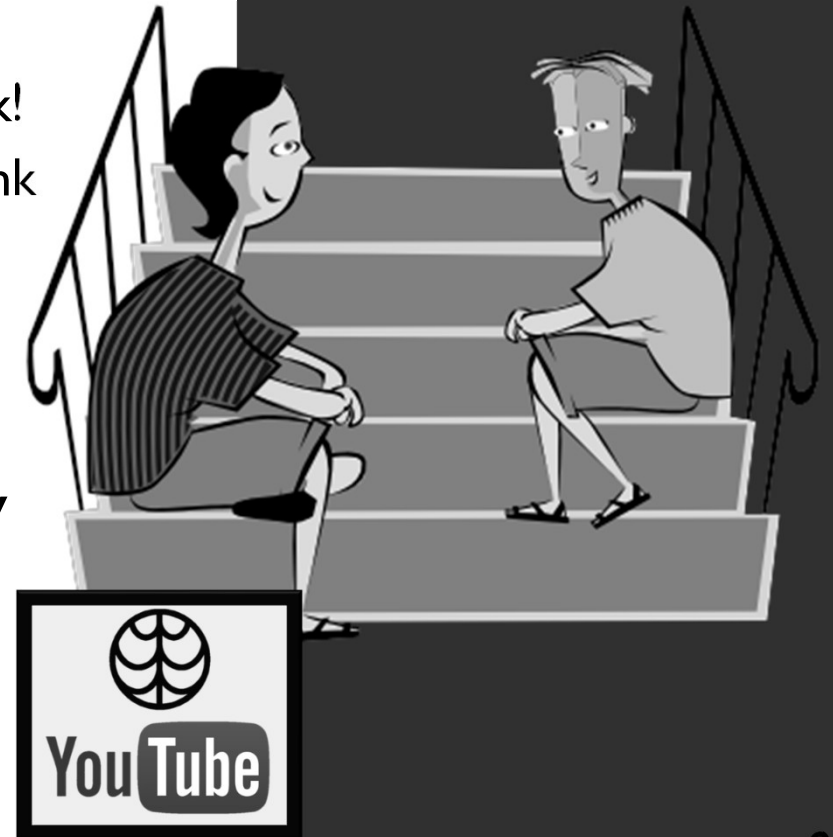
- Identify the issue BEFORE the situation or activity
 - Ask the person to have a conversation



Proactive Plans

Ask the person if they have any solutions

- Use their solution, even if you know it won't work!
 - Don't offer solutions until they've had time to think about it! (minutes, hours, days)
-
- Make a plan together
 - Include a prompt, if necessary





PROMPTS!

Prompts can be used to:

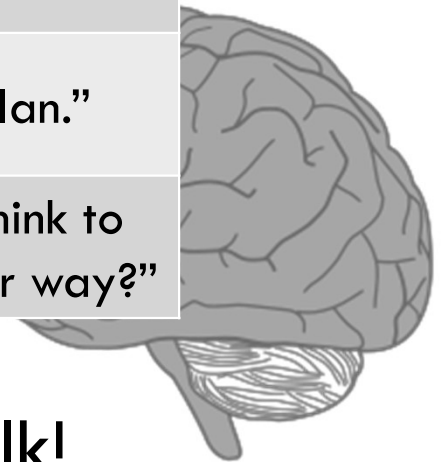
- 1) Remind someone that we've Planned Together
- 2) To address behaviors in the moment

Implementing the Plan

DON'T CORRECT—PROMPT!

Correcting	VS.	Prompting
"Stop doing that!"	VS.	"Think about what you're doing."
"You said that you would go outside when you get upset!"	VS.	"Think about the plan."
"Don't you see why that won't work?"	VS.	"Can we stop and think to see if there is a better way?"

After you have prompted, don't talk!



Why Prompt?

- ▶ We can't expect the person's brain to remember the plan (or what they wanted to do) in the moment.
 - ▶ Even if they *could* remember, are they **regulated** enough to use that information?
- ▶ This is about *processing and thinking*. Once there is a prompt, the goal is to **step back** and let the rest of the thinking/regulating process happen.
 - ▶ That is how skills are built over time!



WHY PROMPT?

- ▶ It encourages the brain to think!
 - ▶ How many behaviors could be prevented the person could improve in their ability to stop and think about what they are doing?
 - ▶ Over time, thinking may improve independently
- ▶ Successful plans means skills can be built
 - ▶ Practice makes “perfect”





Types of Prompts

- Verbal prompts might work for some plans.
 - Low stakes/less chance of reactivity
- Try a visual prompt, to help reduce verbal interactions:
 - Picture
 - Signal
 - Object
- Expect resistance at first if the issue involves escalation. Immediate refusal is common. **Do not respond!**

Proactive Plans

- Identify the issue BEFORE the situation or activity
- Ask the person to have the conversation
- Ask person if they have any solutions
 - Use their solution, even if you know it won't work!
 - Don't offer solutions until they've had time to think about it! (minutes, hours, days)
- Make a plan together
 - Include a prompt, if necessary
- Practice the plan





PRACTICING & ROLEPLAYING

A form of pre-processing

Practicing can take a load off the brain.

We always want to practice and roleplay, if possible.

- They need to be developmentally able and willing





PRACTICE THE PLAN!

Physically practicing when movement is involved makes following the plan easier in the moment

Practicing allows the person to know **WE** will be doing (being quiet!) so that it is not a surprise in the moment

Practicing helps us, too!
(Running away example)

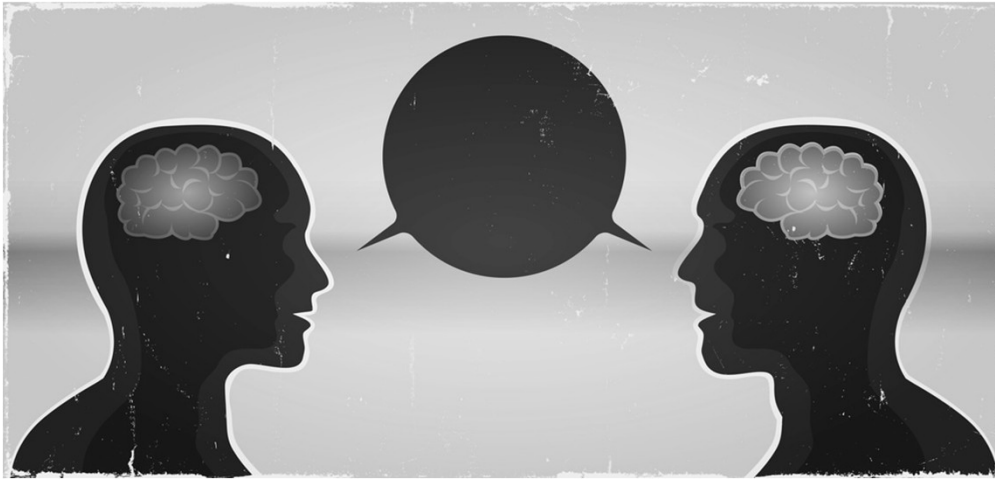


Coming Back to the Conversation

- **Do not expect everything to work the first time!**
- Come back to the plan if successful!
- Be gentle, reassuring
- Make another plan the way you did before, or try the plan again



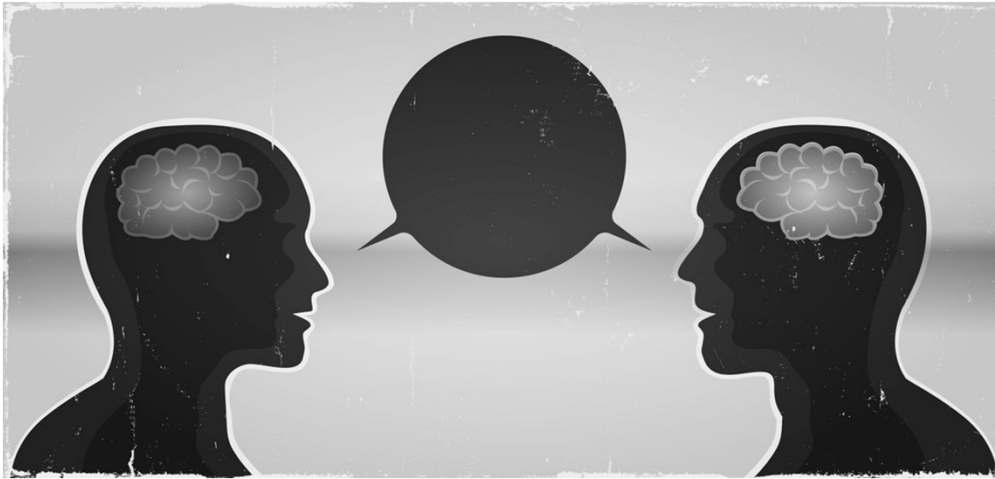
When Plans Don't Work



It's a brain thing!

– While Planning together, the person with an FASD will probably not mention cognitive skills specifically— it's your job to think of them while Planning Together!

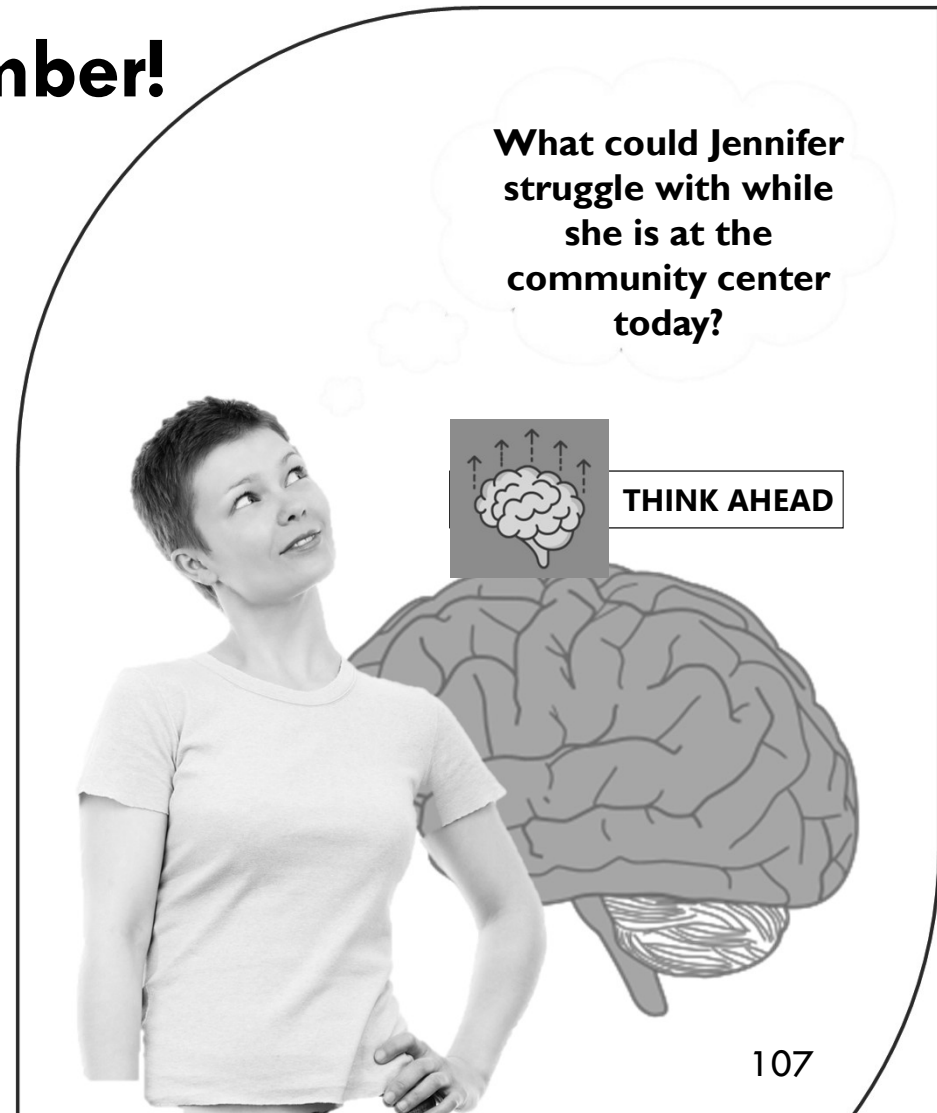
When Plans Don't Work



Think about the Cognitive Skills Filter in the moment the person was “supposed” to follow the plan. Did they have the cognitive skills needed? If not, what is a solution to support those skills?

Remember!

We can't always have a plan for every situation, which is why the rest of the Cognitive Support process is crucial.





Mary knows Andrew struggles with transitioning off of TV, with changes to his routine, and with emotional regulation due to FASD and anxiety.

Mary knows the interview is happening, so she starts planning. Simply telling Andrew about the interview doesn't fix the skill struggles

Mary puts the visual on top of TV
She wakes up early to devote attention to Andrew
She has an alternative plan is ready

This whole Plan is an adjusted expectation from traditional parenting methods!
Mary does not expect Andrew to comply "because she's the mom"

Mary gives Andrew time to think of his own solutions to the problem
She keeps the intervention positive
She makes a clear plan & includes a non-verbal prompt
She has Andrew read it right before starting



Julieta understands that Mark's disability makes processing "the plan" very difficult in the moment. His executive functioning struggles means he has few (if any) cognitive tools to calm down quickly when upset.

Julieta envisions a specific scenario where Mark is likely to struggle—in this case, calming down after getting frustrated. She takes him aside proactively, rather than trying to talk while he is struggling.

Julieta talks to Mark in a quiet environment.

She proactively supports Mark's other struggles using Cognitive Supports.

She hangs the visual by the door so that it is handy for Mark to grab.

Julieta does not expect Mark to follow the plan perfectly the first time.

She does not insist he "say something" before leaving the classroom, and specifically makes a plan that allows for her to be silent.

Julieta gives Mark time to think.

She ensures a significant amount of practicing to make the plan less abstract.

She honors Mark's idea to go on a walk and makes the plan centered around that.

Directly address behaviors/challenges

Benefit from therapy/services

Develop emotional coping skills

Understand disability

Self-advocacy

Blend of interdependence and independence

Planning for future

Collaboration/Planning together



Practicing/Roleplaying

Give time to think

Use Visuals

Adjust Expectations



Think Ahead



Shift Approach



Relational and Subconscious Safety/Connection



UNDERSTAND/CHANGE LENS

Executive Function



Executive Functioning Skills

- **A “hub” of cognitive skills**
- **Brings in information from various parts of the brain**
- **Helps to connect past experiences with current situations**
- **Houses its own set of skills**



UNDERSTAND/CHANGE LENS

Executive Function

The Battles in the Brain

- Executive Functioning evolved after the more “primitive” areas of the brain
- It allows us to *consciously* control our actions by *stopping* or *regulating* what other parts of the brain want us to do
- Our brain battles with (or **regulates**) itself in various situations:
 - Impulse control
 - Emotional regulation
 - Ignoring Distractions





UNDERSTAND/CHANGE LENS

Executive Function

EF Fuel



*Barkley, R. A. (2012).

Executive Functioning Fuel

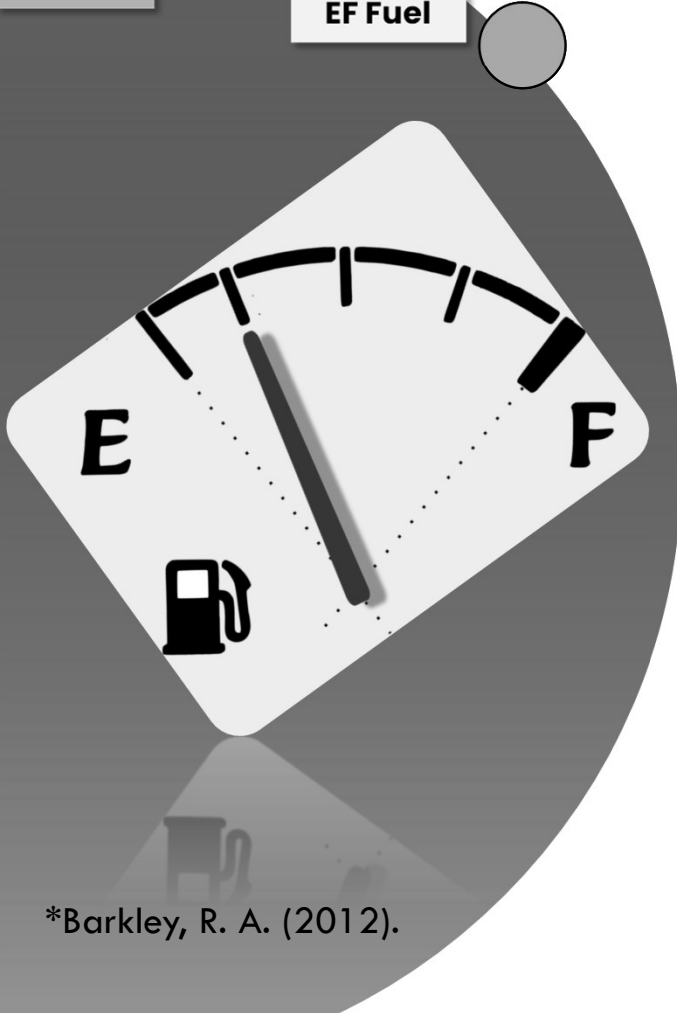
- Executive Functioning “fuel” and skills are a limited resource*.
 - The more complicated the skill or task, the more fuel is used
 - We want to avoid wasting fuel with:
 - Unreasonable to too difficult cognitive demands
 - Negative interactions
 - Forcing our child who *can* “hold it together” to do so day after day
- Fuel is best replenished during **sleep**
 - You can get a small boost by eating food with **glucose**
 - Some people may get a boost (or feel boosted) by a nap



UNDERSTAND/CHANGE LENS

Executive Function

EF Fuel



*Barkley, R. A. (2012).

Executive Functioning Fuel

Lack of fuel or skills leads to:

- Frustration
- Agitation/escalation
- Overstimulation
- Anxiety

Things to keep in mind:

- Adjust expectations when struggling
- Evenings can be hard! Keep things consistent and try to connect once daily, despite struggles
- “Holding it together” costs more than learning a skill. But we have to be willing to do the skills-building process in a way that works for them.

“Boil It Down!”

- Do our plans and supports “**boil down**” to more than just “**try harder**”?
- An incentive is not a support!
- Link supports to a cognitive skill to be more effective



Let's Boil it Down!

- Reward systems/bribes
- Secret signal
- Lectures
- Practicing
- "Get it together"
- Planning ahead together
- Writing down expectations



UNDERSTAND/CHANGE LENS

Boil It Down!

Emotional Regulation

Emotional regulation happens in different ways. We may be...

- Internally regulated (**Green Pathway**)
- Unconsciously regulating (e.g., sensory behaviors)
- Consciously Regulating (e.g., cognitive emotional regulation)



Emotional Regulation

– Cognitive Emotional Regulation

- Allows us to regulate stress (or suppress it) without co-regulation
- Prevents or quickly stops **Red** or **Blue** Pathway reactions
- Very “in the moment”
- Must keep calm enough to use it!

There is no “emotional regulation” structure in the brain.

Emotional regulation is the *result* of executive functioning skills working together.



Emotional Regulation Cognitive Supports

- Conserve fuel by providing Cognitive Supports
- Make a plan/prompt a plan:
 - “In five minutes we are going to talk about something, and you are not in trouble!”
 - “This could be difficult for us to talk about, so let’s be ready to follow the plan if we start to get frustrated.”
- Avoid talking in the moment of escalation!



Why Avoid Talking?

- The situations needs Executive Functioning skills, not communication skills
 - Talking can distract the person from emotionally regulating
- Talking “invites” a response—and we don’t want them to respond
- Talking engages too many cognitive demands (e.g. planning) that can cause more escalation

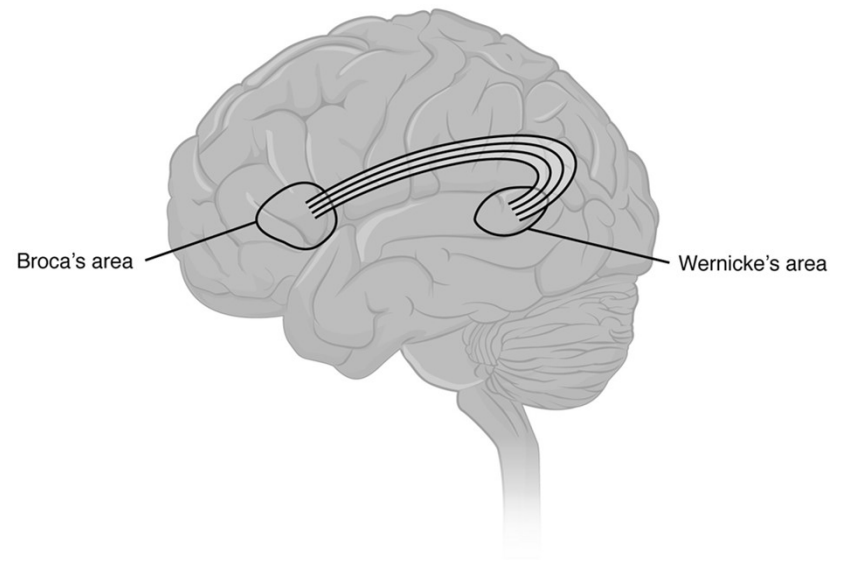


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Responding to Dysregulation (Reactive)

- Stop. Breathe. Think about your brain.
- Resist impulsively answering
- There is *something* wrong, even if it *feels* like they could “just stop”
- Be **curious** about what is happening
- Focus on *soothing* first:
 - Slow things down
 - Adjust expectations
 - Provide comfort/affection/connection
 - Avoid overloading with too many words



Responding to Dysregulation (Reactive)

- We'll start with **low levels** of escalation and move up to more intense **high levels** of escalation.
- Do whatever you can at the beginning stages and work your way through.
- Nothing will work 100% of the time.
- Skip things that you know/suspect won't work



Responding to Low-Levels of Dysregulation

- Have short phrases ready:
 - **“I need a minute to think”** – this slows things down, avoids back-and-forths, and avoids telling them what to do.
 - **“I’m here to help you”** or **“We can work this out”** – this helps them understand we are focused on helping
 - **“That wasn’t what you expected.”** – this helps them understand that you see there is a problem, but avoids giving immediate directions or suggestions for their brain to process



Responding to Low-Levels of Dysregulation

- Have short phrases ready (continued):
 - **“I believe you.”** – this might help them understand that you are on the same page as them, avoids giving immediate directions/suggestions to process.
 - **“Oh no! I can help you with that.”** (Matching energy slightly, quickly followed by a regulated statement) – this tells their brain that you notice what is going on, how it makes them feel, and that you are there to help.
 - You only want to “match energy” like this in low levels of escalation, and only when you are actually regulated.
 - This is typically how we talk to “little kids”, so as they get older you may need to adjust or stop this strategy.



Responding to Low-Levels of Dysregulation

- Don't immediately correct rude or intense demands, statements, or requests.
- Instead, say yes (if the answer is yes), and then see if there is an opportunity for you to gently address any issues later.
 - Robyn Gobbel suggests **during low levels of escalation** possibly saying something like, "Yes I can get you a snack. While I get up, could you ask me nicely?"
 - They may refuse to do this in the moment—accept it. The goal is to stay regulated in these lower-level escalations.



Responding to Low-Levels of Dysregulation

- If there is a power-struggle, or if the answer is no, be willing to compromise if it will help them go back to the **Green Pathway**.
- Consider if their brain is seeking **autonomy**. If so, how can you give them more choices and avoid additional demands?
- Use soft facial expressions and body language to show them that you support them.



Responding to Low-Levels of Dysregulation

- If you sense that they are trying to be **heard or understood**, tell them that you want to help and encourage them to take some time to think.
- If appropriate, use humor to help their brain go back to the **Green Pathway**.
- If appropriate, use a distraction to help their brain go back to the **Green Pathway**.

Responding to Low-Levels of Dysregulation

From Robyn Gobbel:



- Consider their physical and sensory needs:
 - Drinks (hot, cold, thick, sweet)
 - Snacks (chewy, crunchy, sour, sucking)
 - Movement (jump, run, wiggle, upside down)
 - Water (bath/shower, swimming, sprinkler, drinks)
 - Big body activities such as “arm wrestling, running around the house, pillow fight, [or a] dance party.” (Robyn Gobbel)
 - Cooking and baking
 - Sensory play like finger painting or shaving cream. (Gobbel)

Responding to Low-Levels of Dysregulation

– Consider the physical environment:

- Turn off devices that are making noises
- Ask people (especially if they are making noise) who are making noise to leave
- Remove any potentially-dangerous items from the area
 - Do this in a non-frantic way



Responding to Low-Levels of Dysregulation



If none of these work, stay quiet for a few minutes to see if this helps with regulation.

If needed, gently suggest that they take some space/take a break in their bedroom or another appropriate and safe location

Be OK with adjusting your original expectations if it helps **you** stay regulated, to move on, or to keep them regulated.



Responding to Low-Levels of Dysregulation

WHEN OTHERS (E.G. SIBLINGS) ARE INVOLVED (LOW LEVEL)

- Gently say, "Let's all pause." Consider having everyone take a deep breath.
- Encourage both siblings to think about a way forward/compromise/alternative
- If needed, suggest that siblings take a break
- Give them time to think (encourage them to think before answering)
- Facilitate a "deal" between the siblings, if needed. If they cannot do so on their own, you can gently give your ideas or a new plan to move forward.

Note: these will only work when both siblings are in low levels of escalation.

Responding to High-Levels of Dysregulation



- Avoid immediate responses!
 - Be **curious** about what is happening—this helps us with our own regulation
- Say, “I want to help you” or “We can work through this together” and then be quiet.
- If you sense their brain feels unsafe, clearly state “I am safe”, “You are safe,” “You are not in trouble,” or “I’m not going to hurt you”
 - Give distance and show safety with your body.
 - Sit low if you can
 - If you have to move around, move slowly

Responding to High-Levels of Dysregulation



- If possible, give distance.
 - This might mean in a separate room or in the same area, depending on safety needs.
- Keep the environment safe. Calmly ask others to leave the area
- Consider physical and sensory needs
 - Drinks (hot, cold, thick, sweet)
 - Snacks (chewy, crunchy, sour, sucking)
 - Movement (jump, run, wiggle, upside down)
 - Water (bath/shower, swimming, sprinkler, drinks)

Responding to High-Levels of Dysregulation



WHEN OTHERS (E.G. SIBLINGS) ARE INVOLVED (HIGH LEVEL)

- Suggest that everyone take a break. They may need your help in transitioning to another activity for a while.
- If needed (and safe), step between siblings to ensure you have their attention and that they can hear what you are suggesting.
- After everyone is regulated, help everyone come up with a plan to move forward. (This may be trying the activity again, trying a different activity, or doing separate activities for a while.)



When “Nothing Works”

- Respond to every **3rd statement** if person is oppositional and not allowing disengagement.
- Say, “**I need a minute to think**” or “**I’m following the plan**” to try and buy time.
- Model (& achieve!) regulation by **taking time to think** and **taking a breath** before saying anything.



De-Escalation and Returning to the Green Pathway

Look for signals that they are starting to regulate back to the Green Pathway.

- Less anger
- Wanting more interaction after not wanting it
- Seeking comfort
- Showing flexibility

Wait until you are able to move forward or help them think through the immediate issue. If needed, make a plan/agreement on how to move forward with the day.

Every time dysregulation occurs, there is an opportunity for us to **model** regulation through these strategies.



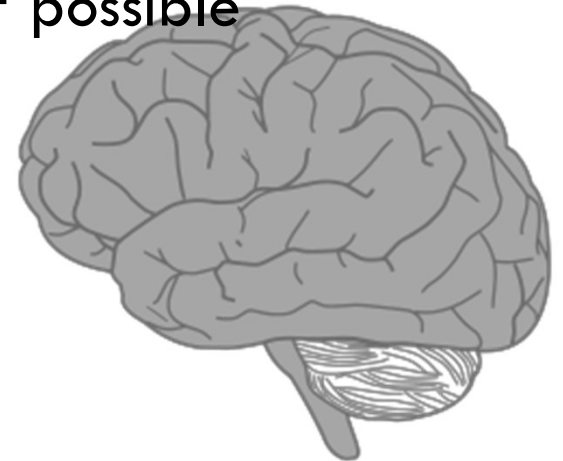
Final Thoughts on Responding to Escalation

While we want to listen to what our children have to say, much of what is said during dysregulation does not “mean much” in terms of what is going on.

- They probably don't yet understand their underlying physical/sensory/neuroceptive dysregulation
- Unhelpful Scripts like “I hate you”, “I don't want to be in this family,” or “I'm stupid”
- Responding to these messages may prevent regulation or take us down the “wrong” route
 - Address them later (if needed) when your child is doing better

Escalation Plans

- This is an advanced Cognitive Support. They must be developmentally ready *and* willing to have the conversation.
- Use the **Plan Together** model to develop the plan
- Everyone should practice the plan!
 - **Practice** the plan in all likely locations
 - Siblings/peers should practice the plan/their own plans
- Should be consistent among settings/caregivers, if possible
- Consider peers/distractions
- Goal is not to teach a lesson
- Don't respond to immediate opposition



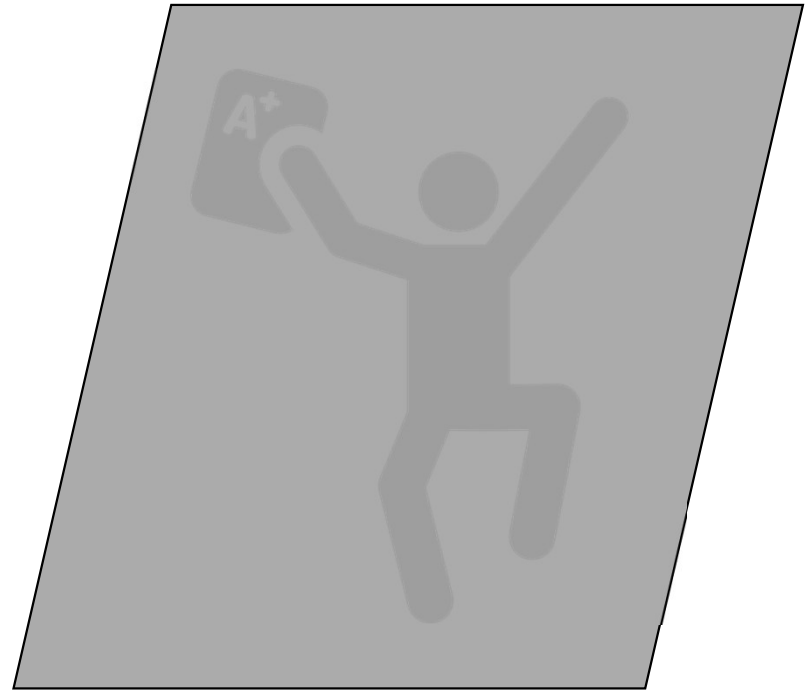
How Skills Are Developed

WHAT WORKS:

- Successful practicing/experience
- Slight challenge when doing well (and supported)
- Brain development (until ages 23–25)

WHAT DOESN'T WORK:

- “Trying harder” or will-power
- Constant stress/Disaster/Crisis/Unsuccessful Practice
- Directing the person
- Not recognizing skill limitations



Attention is the Foundation



Millisecond by millisecond!

Model In Development

Attention is the Foundation



Millisecond by millisecond!

Model In Development

Sustained Attention

Pre-executive functioning attention develops **during infancy** as we attend to cues in the environment. Early patterns form positive or negative associations (e.g. mama!) outside of a conscious awareness.

Eventually, our brain develops an ability to “choose” what to focus on, and to focus for longer periods of time.



Sustained Attention

The more we can hold our attention, the more we learn by picking up on familiar patterns. We have every waking moment to practice as toddlers and children—assuming we are regulated and experiencing safe neuroception.

This leads the way to more advanced EF skills such as planning, predicting, and abstract thought.



Sustained Attention

It is extremely common for people with **Executive Dysfunction** to be able to focus for long periods on something they are interested in.

They are not “picking and choosing” to focus on video games but not on math. Video games *work* for their brain and are *familiar* (practiced)



Sustained Attention

When someone struggles “holding their attention”, this *doesn't* mean that they *can't* pay attention to anything.

It means they struggle **regulating** the spotlight of focus, the quality, and/or the amount of attention span. This looks like being “unable to pay attention” to adult/neurotypical standards.



The Usual Suspects

- Low Executive Functioning “fuel”
- Things moving too quickly
- Unsafe neuroception
- Too much verbal communication
- Too many skills demanded
- Neurology (FASD, being a kid)
- Mental health symptoms
- Sensory dysregulation (overstimulation)

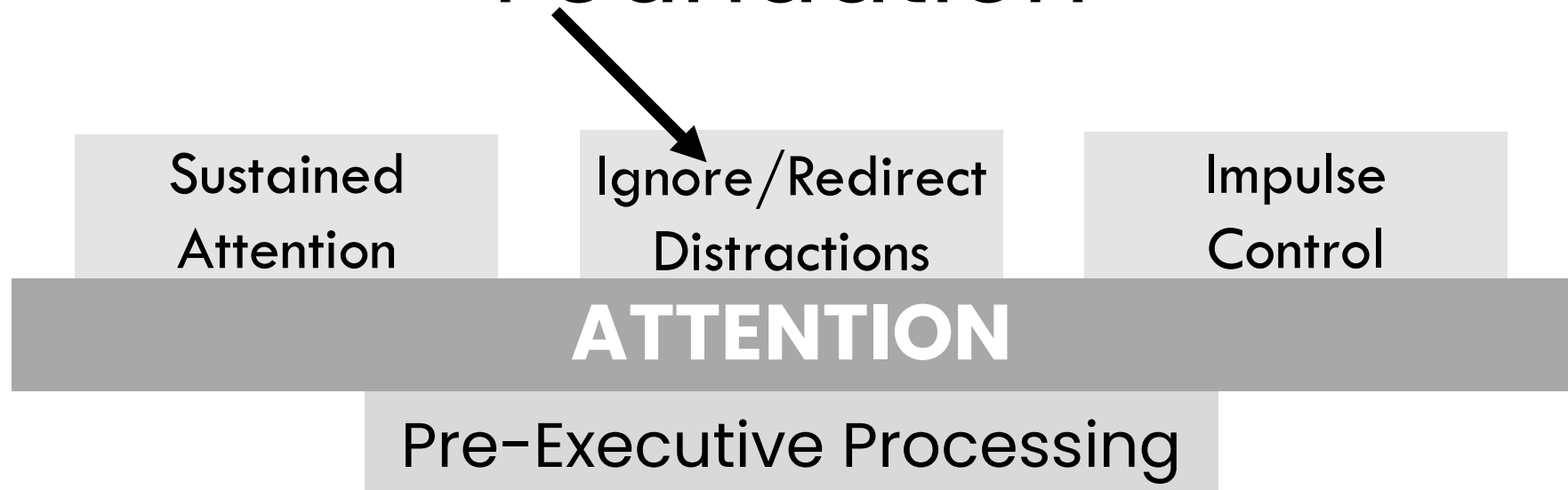


Struggling with Attention Span

Things that Interfere with Attention	Struggles Can Lead To:
• The Usual Suspects  • Too many distractions/variables to focus on • Lack of motivation • Being bored with task	• Frustration, escalation, anxiety, restlessness • Unclear expectations/direction • Memory retention issues • Lower communication skills • Boredom • Refusal • Overstimulation • Hyperactivity • Feeling defeated • Being accused of not caring, refusing, not “trying hard enough”



Attention is the Foundation

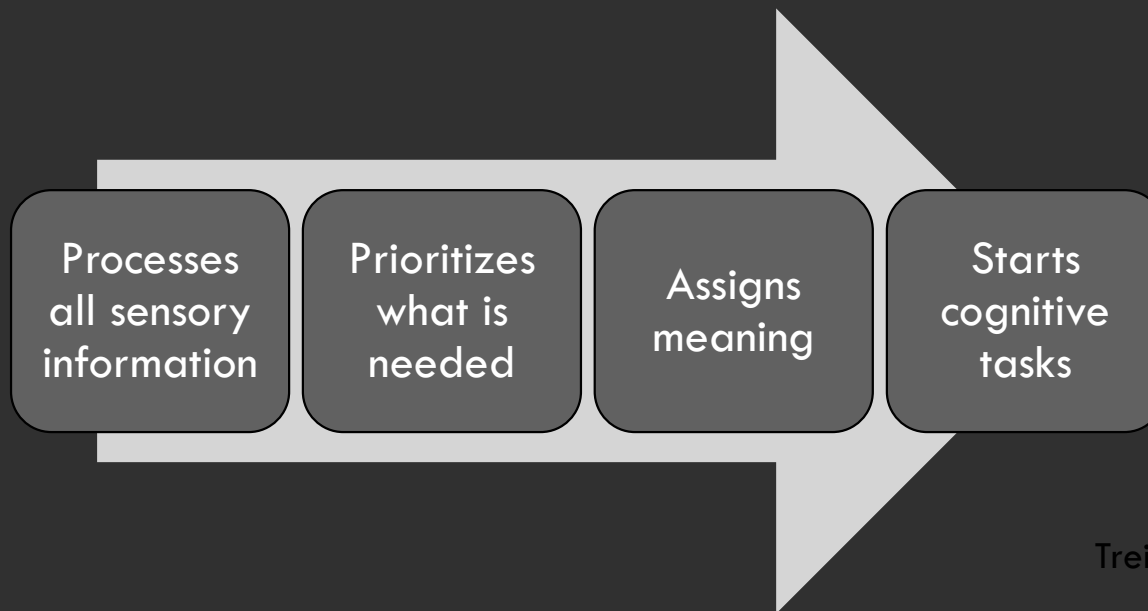


Millisecond by millisecond!

Model In Development

Selective Attention (Ignoring Distractions)

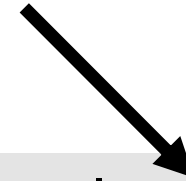
- Selective attention allows us to process the environment while ignoring or filtering distractions that are irrelevant to where we want our attention to be
- We still do not know exactly how selective attention works
- Our brain will:



Struggling with Selective Attention

Things that Interfere with Selective Attention:	Struggles Can Lead To:
• The Usual Suspects  • Too many distractions/variables to focus on • Lack of motivation to do current task (e.g. boring) • Being worried about something/perseveration	• Being off task • Restlessness, frustration • Difficulty learning/processing verbal communication • Overstimulation • Being accused of not caring, refusing, not “trying hard enough” • Not being able to participate in important activities because of lack of focus (e.g. church, family time)

Attention is the Foundation



Millisecond by millisecond!

Model In Development

Impulse Control

- Remember, the EF system evolved *after* the “primitive brain”
- Impulse control is *not* natural, even though it may seem that way
- The EF system must “battle” the primitive brain to resist *each* impulse
- It takes EF Fuel each time!
- Bop-It/screaming in the house

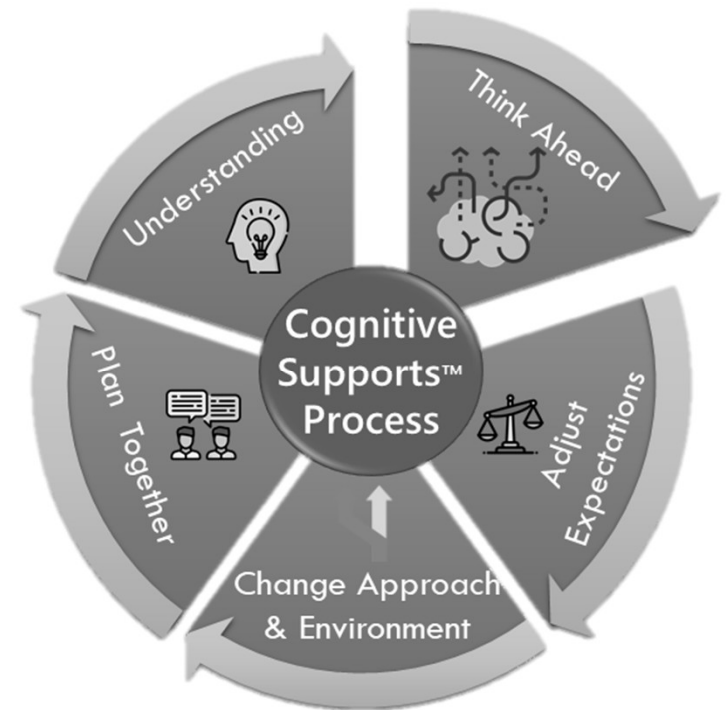


Struggling with Impulse Control

Things that Interfere with Impulse Control:	Struggles Can Lead To:
• The Usual Suspects  • Trauma • New, unfamiliar situations • Unclear expectations	• Tasks longer to complete a task • Very hyperactive “out of control” behaviors while playing • Frustration and boredom with a task • Dangerous or risky behaviors • Lashing out during escalation with words that don’t take thinking (we think them all the time) • Engaging in aggressive behaviors without thinking • Life changes (e.g. pregnancy)

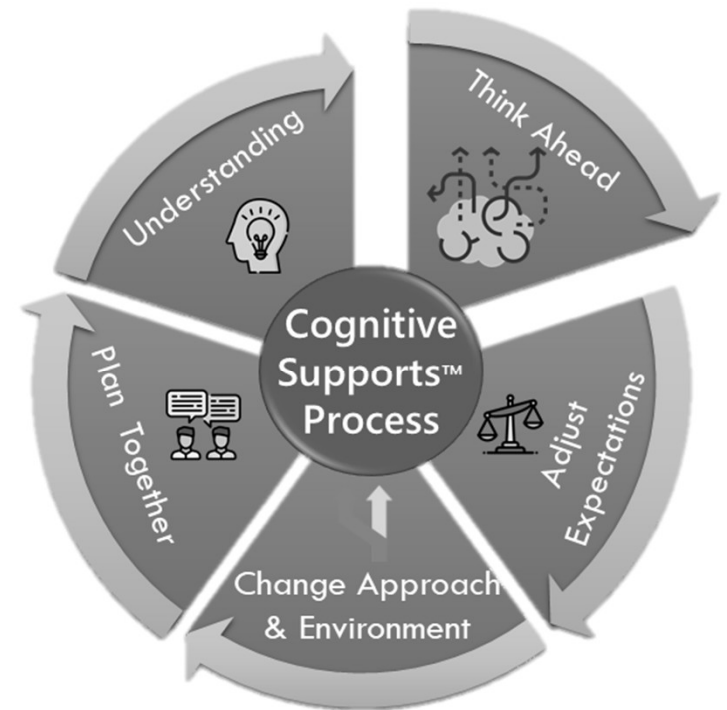
Potential Cognitive Supports for Attention, Ignoring Distractions, and Impulsivity

You likely do many of these strategies already. They become Cognitive Supports once you intentionally link on to a student's specific cognitive skill deficit.



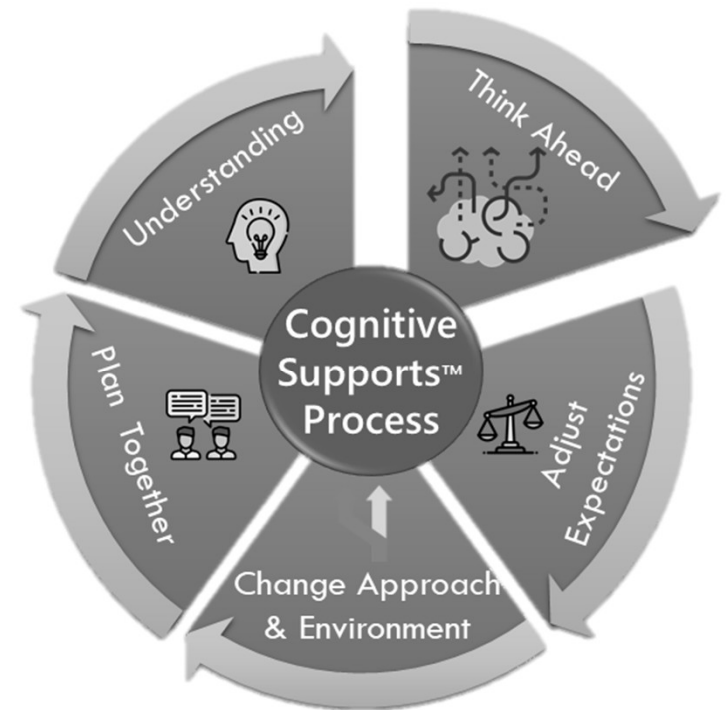
Potential Cognitive Supports for Attention, Ignoring Distractions, and Impulsivity

- Provide visuals of expectations/time
- Practice tasks that will be done in a noisy environment ahead of time
- Come up with a non-verbal signal that can redirect attention when needed
- Provide sensory supports (e.g. calming sensory input) throughout the routine
- Provide sensory modifications (e.g. ear plugs, calming music)



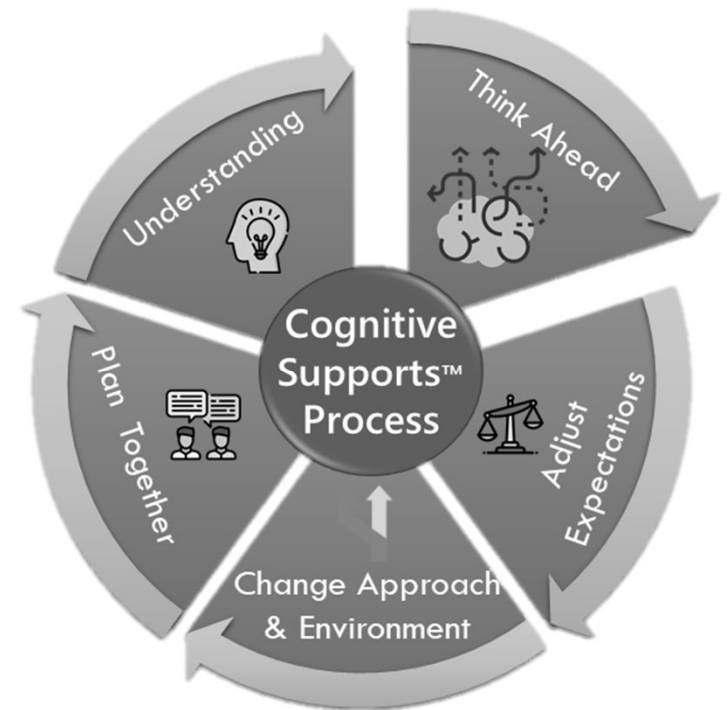
Potential Cognitive Supports for Attention, Ignoring Distractions, and Impulsivity

- Consider what is “blocking” attention
- Avoid talking! Instead, use visuals!
- Break things down into easy steps (think ahead!)
- Give lots of breaks and transition times
- Give specific time frames (e.g. “in five minutes you will be done”)
- Create an environment that is as distraction-free as possible



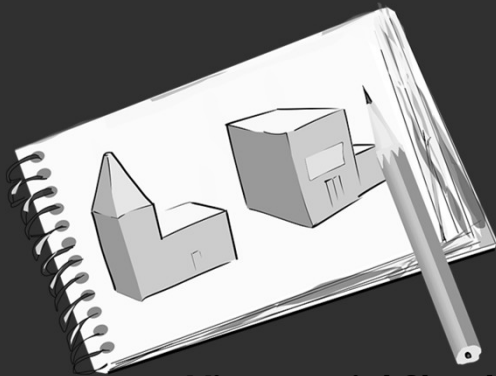
Potential Cognitive Supports for Attention, Ignoring Distractions, and Impulsivity

- Understand the limits attention
 - Some days just may not be good
“focusing” days: that is OK!
- Adjust expectations when environment is noisy



Working Memory

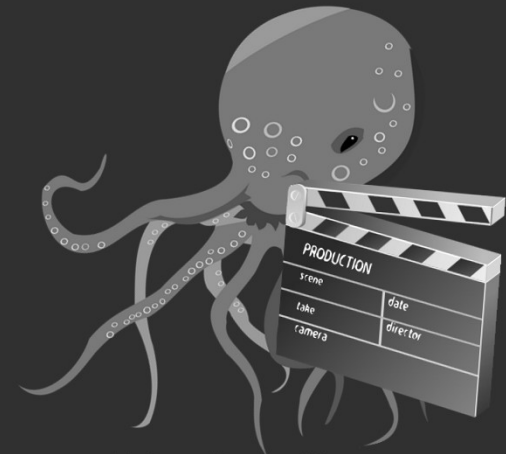
- Our brain's ability to **hold information** and **manipulate it** *in the moment*
- Typically developed adults have a “capacity” of about **7 pieces of data** (game of Simon)
- Critical component of **abstract thinking**
- Significant part of **processing verbal language**



Visuospatial Sketchpad



Phonological Loop



Episodic Buffer

Baddeley and Hitch's Model



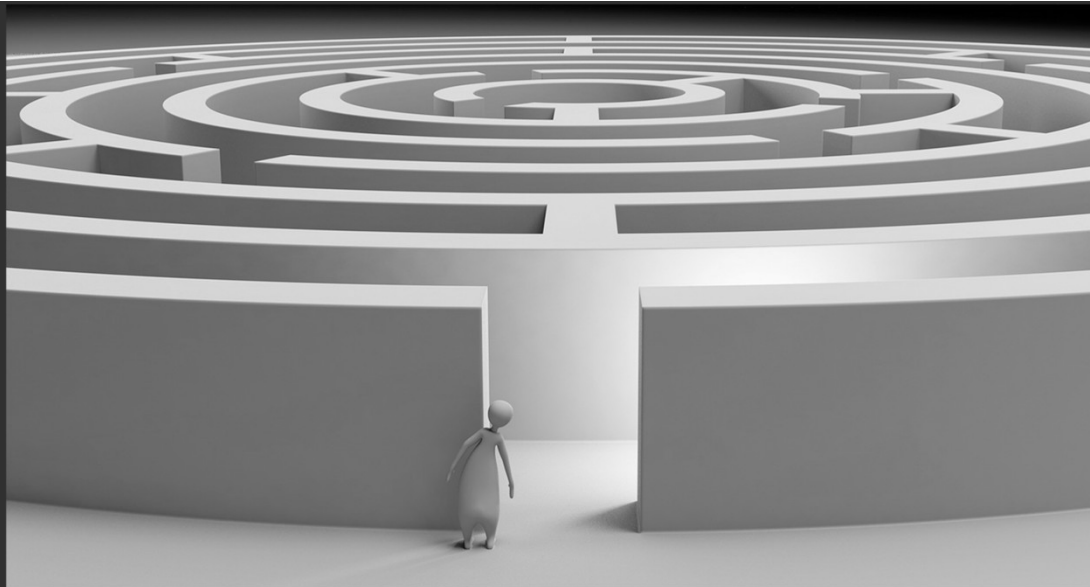
OBC
Oregon Behavior Consultation

“Anytime you’re giving people instructions, you’re
relying on their working memory...
Anytime you’re telling a child what to do,
you’re relying on their working memory.”

–Dan Dubovsky

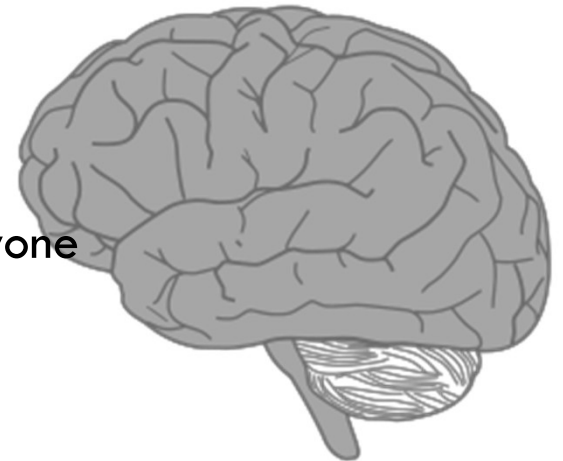
PLANNING, PROBLEM-SOLVING, SHIFTING

- Our brains are **constantly** making and adjusting “plans” (goals) in many situations
- For most of us, this seems natural—but it’s really a cognitive skill that you practiced over development!
 - Applying the brake when the driver before you breaks.
 - Looking for your keys, spotting them, and changing your body and direction to grab them.
 - Interpreting what someone else is saying, and what it implies for you.
- There are several **levels of complexity** with planning skills. These include pattern recognition, self-organization of multiple tasks, self-monitoring and correcting, concluding, initiating, and transitioning.



Consequences to Planning Difficulties

- Planning, shifting, and problem-solving happen on the *shaky* foundation of our attention.
 - Attention span, ignoring distractions, impulse control
 - Slower processing speed
- How often are people with FASD put in situations where they cannot make plans quickly or accurately enough?
- Children who struggle planning will:
 - Become overwhelmed easily
 - Struggle with sudden changes to a plan
 - Show frustration or other behaviors “for no reason”
 - Make decisions that don’t seem to make sense, though everyone assumes they “knew what they were doing!”
 - Adults or supporters don’t see it as a “planning” issue.

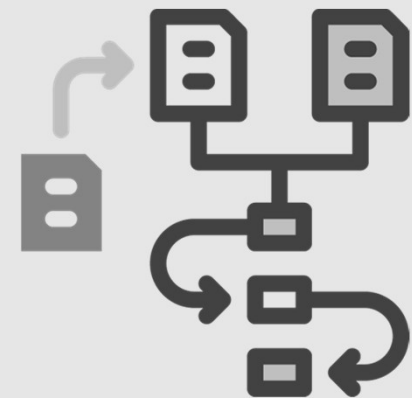


Struggling with Planning, Problem-Solving, and Shifting

Things that Block Interfere:	Struggles Can Lead To:
• The Usual Suspects  • Abstract concepts • Unexpected changes/demands • Things going differently than expected • Noises, too much talking nearby	• Potential difficulty in abstract play (vs. concrete) • Difficulty learning (especially verbally) • Difficulty adapting quickly • Frustration/escalation • Anxiety (uncertainty of what to expect) • Unsafe neuroception

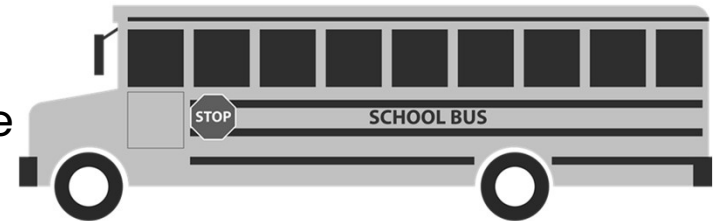
Cognitive Supports for Planning & Problem-Solving

- Slow things down/give *lots* of thinking time
 - This will vary depending on the day
- Visualize! Avoid too much verbal communication (“notes”)
- Give appropriate notice when the plan has to change
- Figure out what the person is expecting ahead of time, not in the moment
- When plans change, immediately “paint the picture” (compliment)
- Pre-plan and practice as much as possible!



Adjusting/Transitioning

- Remember, planning is hard! So adjusting to a *change* in plan or mindset will also be hard. It is *forced* planning & adjusting.
- Transitioning includes shifting attention and mindset into a **new environment** or a **new set of expectations**
 - Often very difficult, and can produce unsafe neuroception, oppositional responses, or avoidance (e.g. excuses)
- Familiar and expected transitions tend to be easier because they are *practiced* and thus require less executive functioning skills and processing.
 - Don't interpret this as “picking and choosing”



Struggling with Transitioning

Things that Interfere:	Struggles Can Lead To:
• The Usual Suspects  • Later in the day • Hard day • Poor sleep • Unexpected situations • Pressure from supporter • Motor planning struggles	• Difficulty adapting quickly • Frustration/escalation • Defensive opposition • Overstimulation • Anxiety • Unsafe neuroception

Cognitive Supports for Transitioning

- Provide longer transitions after significant transitions (e.g. home from school)
 - Expect the need to vary the transition time, depending on the day
 - Some people need 30-60 minutes of transition time
- Focus on co-regulation during transitions and send safety cues.
- Offer a sensory activity or connecting activity to buffer tough transitions
- Keep environment soothing during transitions (e.g. calming music, smells)



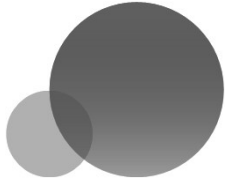


Transitions from Preferred Activities

- Consider and honor what draws them in:
 - Easier cognitively (e.g. visual)
 - Soothing *sensory experience* or a *sensory regulator*
 - May be something they are *good* at
 - Allows them to *connect socially* (including online)
 - It is something they can *focus* on more successfully (vs. fighting distraction)



Transitions from Preferred Activities



- Remember the reality of transitioning:
 - It's a complex cognitive demand
 - It is primed to be a source of unsafe neuroception due to how it promotes dysregulation and stressful interactions
 - The person is *not choosing* to have a hard time transitioning. They are legitimately struggling.
 - Asking questions may be someone's way of trying to avoid *perseveration*, not engage in it.



Transitions from Preferred Activities

- Co-transitioning:
 - A few minutes before they are expected to stop, sit down closely without saying anything
 - Show affection/connect if appropriate
 - This allows their brain to become aware of you with less demand.
 - Ask a question about what they are doing (e.g. "Who is your favorite character?", "What movie is this?" "Is that level hard?")
 - This brings them "back into our world" slowly



Transitions from Preferred Activities

- Co-transitioning (continued):
 - Doing this may help them self-transition. This is because our presence can help *co-regulate* during a time of stress (cognitive demands of a transition)
 - You may be able to ask “What’s next?” to initiate a transition.
 - This strategy came from the following article: www.parent.com/how-to-end-screen-time-without-a-struggle

Slower Processing and Executive Dysfunction* Impact Perception and Memory

*And many other factors!





Which Takes the Most Brain Power?



Lying

Intentional, thought-out, planned lying

Unsafe neuroception

"Trying out" or "experimenting" newly developed skills

Cognitively easier than the truth



**Processing/
Understandin**

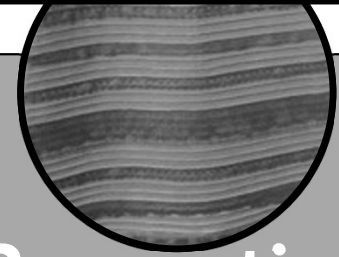
a

Impulsivity

Impulsive Answer to a Question

Resistance to mental effort

Processing Verbal Language



**Perception
Distortion**

s

Processing Speed

Confabulation

("Filling in the blank")

Cognitive Distortion

Memory Distortion

Memory Supports

- Slow down/give time to process
- Check in throughout the day
- Use visuals!
- Use other organization tools (e.g. apps)
- Focus on the “next step” for larger projects
- Record instructions or conversations when appropriate

Copyright Oregon Behavior
Consultation/Cognitive Supports



Breakout Groups

*Please keep **confidentiality** in mind and do not share identifying information about anyone. Stick to using **initials** and **general descriptions**. If you cannot share because you are in ear shot of someone, show the “peace” sign or say “I feel like an orange”.*

Please be mindful about how much time is left and allow each person in the group to share.

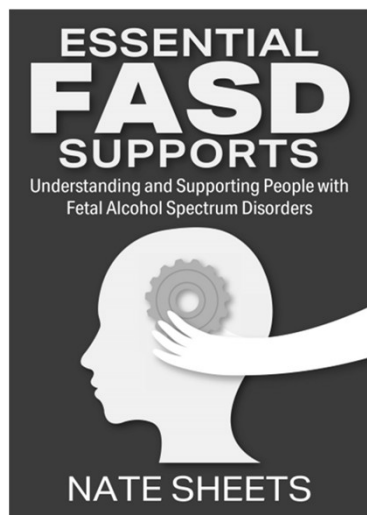
- Which discussed **cognitive skill** is the most significant for the person you’re thinking about today? (If there is time, give a couple of examples.)
- What are some steps you can take immediately to provide cognitive supports to the skill you identified?
- What are some of the supports that you struggle with implementing the most? How can you practice or prepare ahead of time to improve?
- What are the challenges or obstacles to providing supports that you need more problem-solving and thought?

Final Thoughts

- When parents and caregivers interpret behaviors as being the result of struggling cognitive skills, we can start to think of solutions that take those skills into account.
- When we assume behaviors are intentional and willful, there is little we can do to proactively work around the skill. We may end up resorting to punishments, arguments, and power struggles.
- Research suggests that parents who understand the brain-based reasons for behaviors are more likely to use proactive strategies and feel more successful in their parenting



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Major Sources

Prenatal exposure is Most Common Cause of Learning/Intellectual Disabilities

Mukherjee, R. A., Hollins, S., & Turk, J. (2006). Fetal alcohol spectrum disorder: an overview. *Journal of the Royal Society of Medicine*, 99(6), 298–302. <https://doi.org/10.1258/jrsm.99.6.298>

FASD Parenting using Neurobehavioral Model

Petrenko, C., Pandolfino, M. E., & Roddenbery, R. (2016). The association between parental attributions of misbehavior and parenting practices in caregivers raising children with prenatal alcohol exposure: A mixed-methods study. *Research in developmental disabilities*, 59, 255–267. <https://doi.org/10.1016/j.ridd.2016.09.005>

Executive Functioning Model & Fuel

Barkley, R. A. (2012). *Executive functions what they are, how they work, and why they evolved*. New York, NY: Guilford.

FASD Prevalence

May, P. A., Chambers, C. D., Kalberg, W. O., Zellner, J., Feldman, H., Buckley, D., Kopald, D., Hasken, J. M., Xu, R., Honerkamp-Smith, G., Taras, H., Manning, M. A., Robinson, L. K., Adam, M. P., Abdul-Rahman, O., Vaux, K., Jewett, T., Elliott, A. J., Kable, J. A., Akshoomoff, N., ... Hoyme, H. E. (2018). Prevalence of Fetal Alcohol Spectrum Disorders in 4 US Communities. *JAMA*, 319(5), 474–482. <https://doi.org/10.1001/jama.2017.21896>