

# Understanding How “Executive Function” IS “Everyday Function” in FASD



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# Executive Function

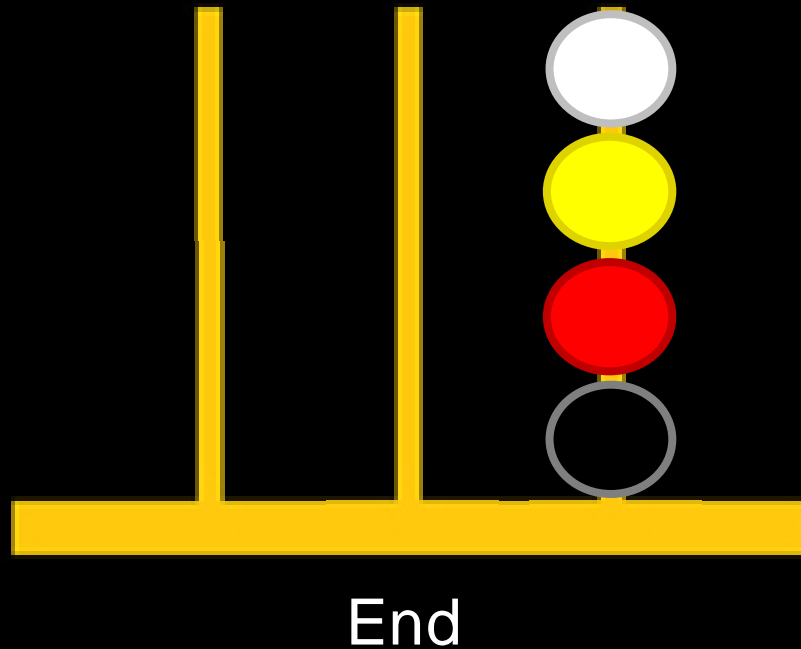


# Assessments of Executive Function

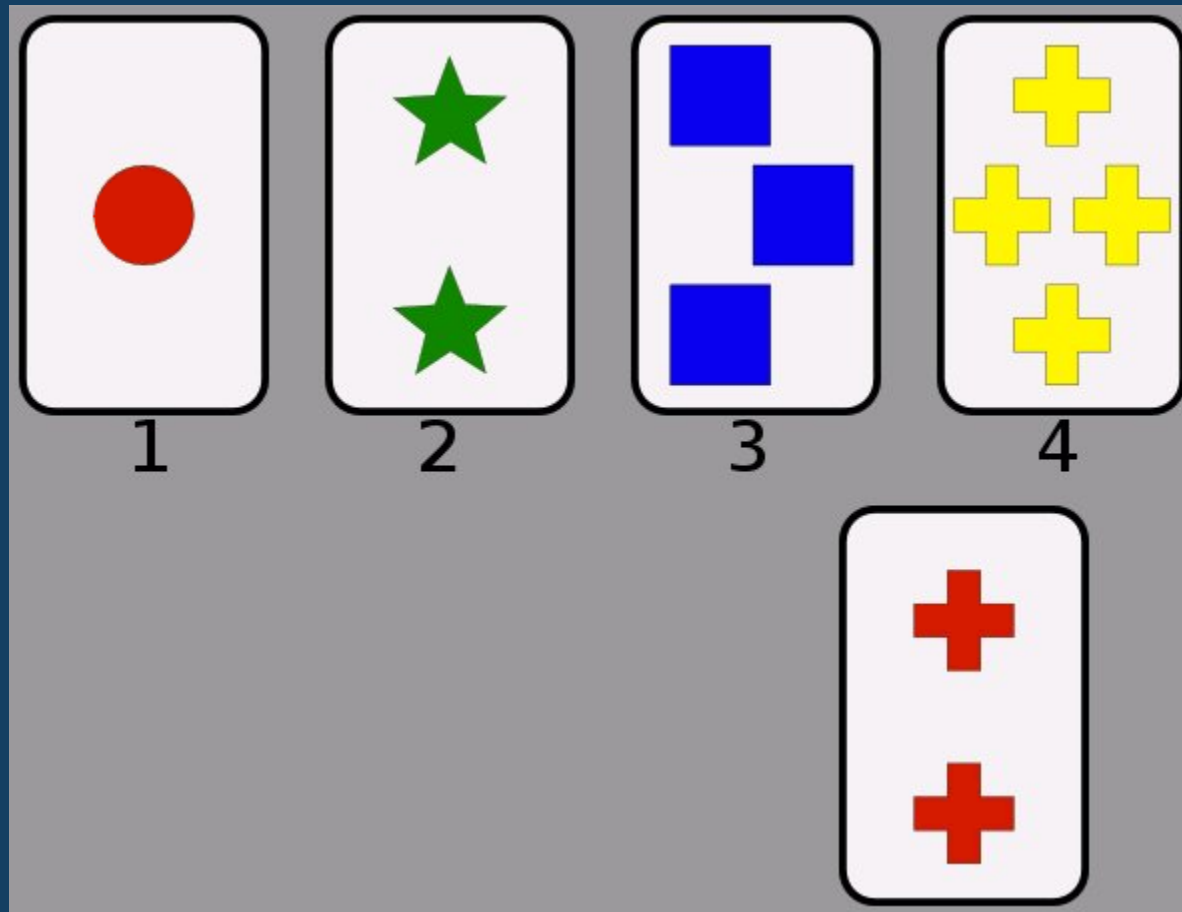
A word cloud of executive function assessments arranged in a diamond shape. The words are in various shades of blue and white, with some being larger and bolder than others. The assessments listed include:

- Hayling Sentence Completion
- Brixton Spatial Anticipation
- Sustained Attention To Response
- Multiple Errands
- Cambridge Neurological
- Six Elements
- Verbal Fluency
- Hotel
- N-Back
- Gambling
- Stroop
- Hanoi
- WCST
- Design Fluency
- Dysexecutive
- Tower Of London
- Letter-Number Span
- Cognitive Failures
- Greenwich
- Frontal Systems Behavior

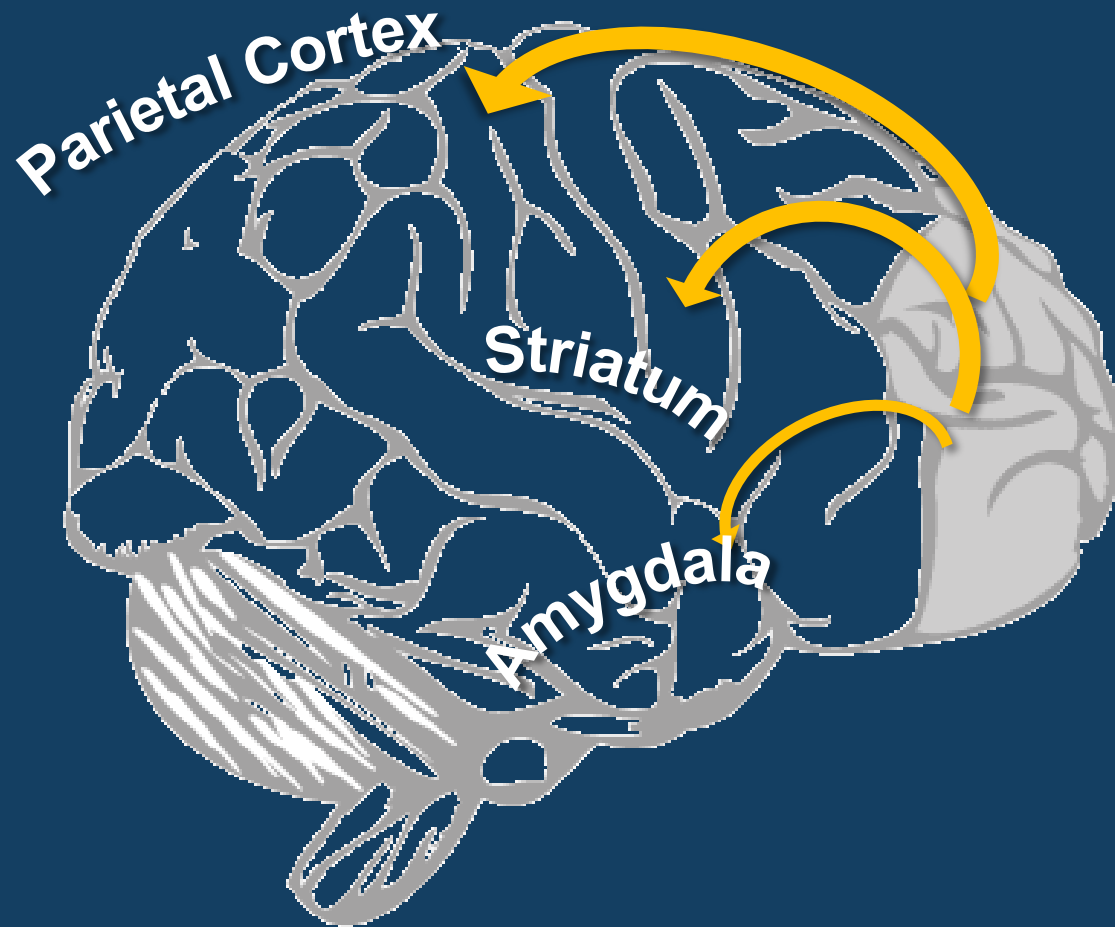
# Tower of Toronto



# Wisconsin Card Sorting Test



# The PFC is Well-Connected



**Planning**

**Problem-  
Solving**

**Emotional  
Regulation**

**Flexibility**

# FASD



**AND SO WHAT?**

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**LET'S RETHINK THIS THING**



# *Purpose of EFs*

EFs enable the ability to respond in an adaptive manner, and underlies success in cognitive, *emotional & social skills* Paraphrasing from Lezak et al (2012), p. 666

# Impersonal Problem-solving

3.



4.



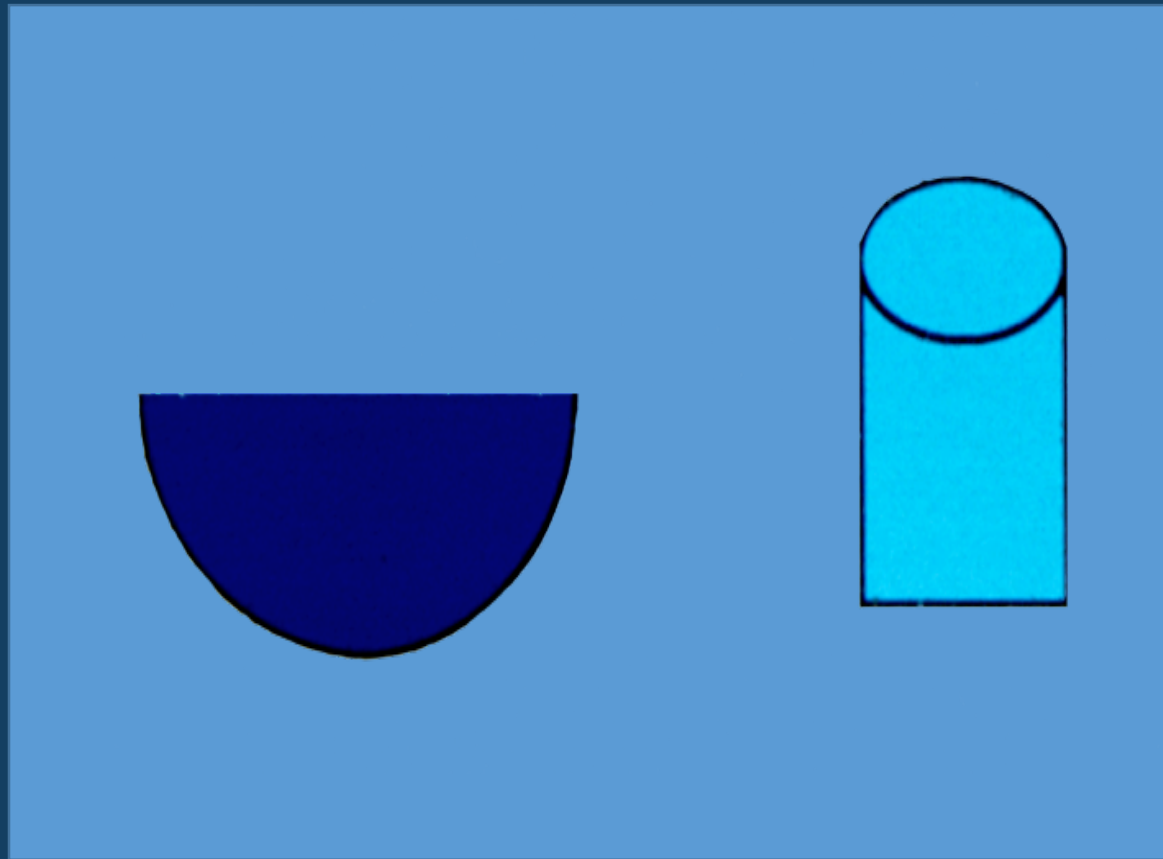
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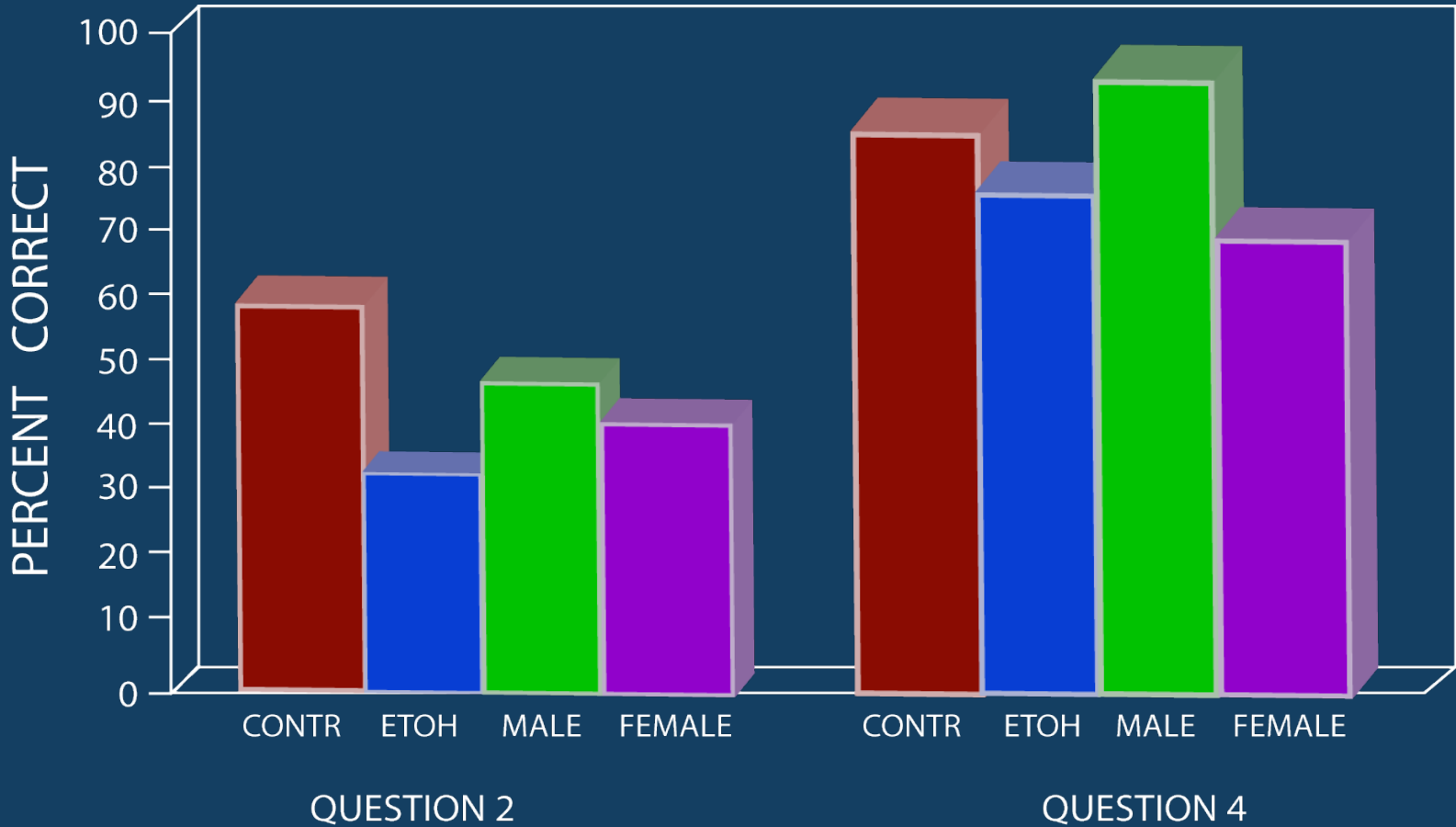
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# Impersonal Problem-solving



# Impersonal Problem-solving



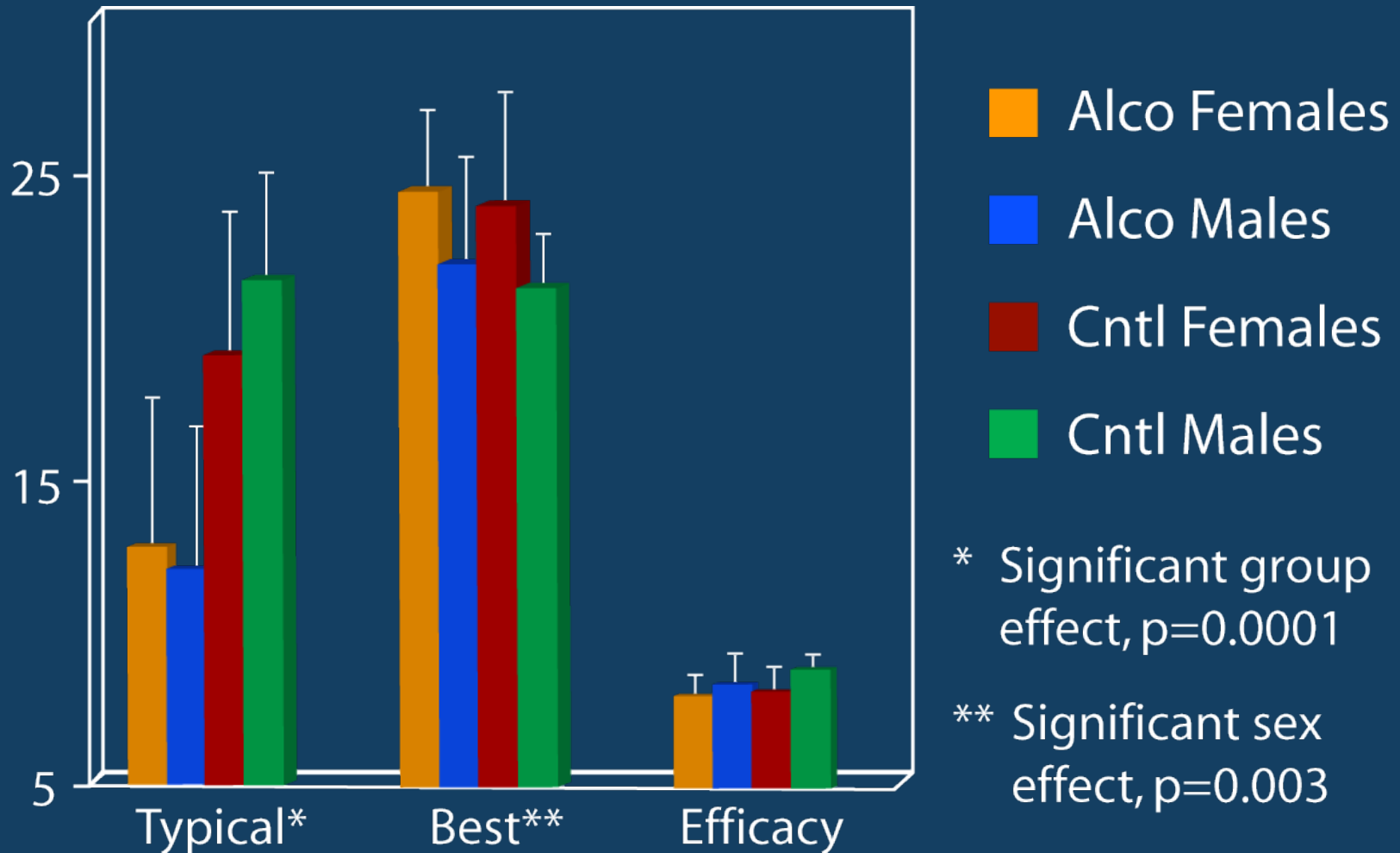
# *Purpose of EFs*

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# Interpersonal Problem-solving

In spite of your repeated warnings, your long talks, and punishments, your child persists in coming home long after curfew you have set. One night you are waiting 45 minutes after the deadline and are really angry. She comes in, and as you begin to explain why you are angry, she yells at you. “Look you old fossil, I can’t live like you did back in the dark ages!” You really feel like you are about to blow up. How do you handle it?

# Adaptive Skills Battery



# ARE WE STILL MISSING THE POINT?

- Problems in getting & keeping a job
- Challenges with the legal system
- Failed friendships & other relationships

Tests don't adequately address challenges in the real-world

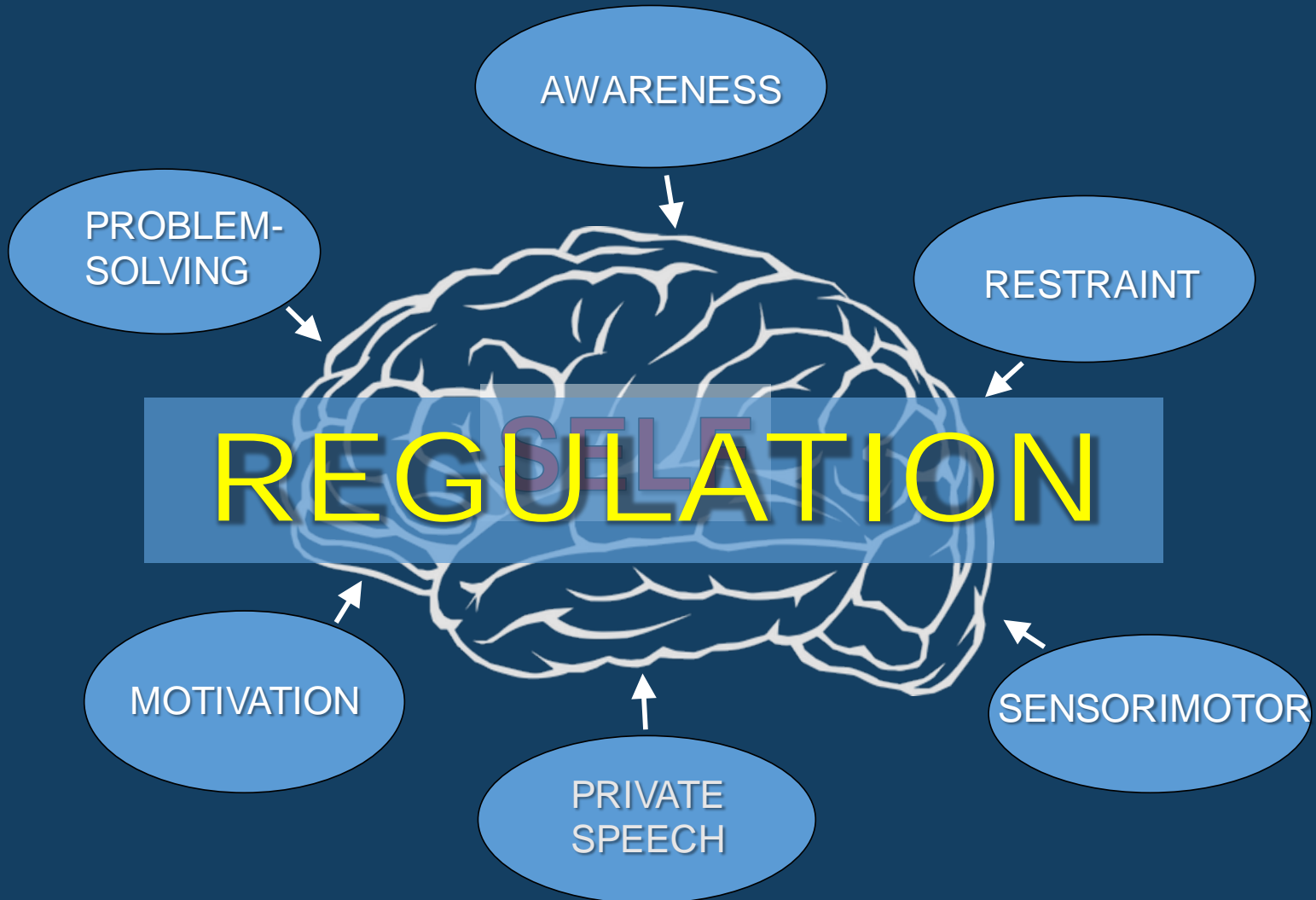


# EFs Are Also

**Developmentally Sensitive:** Linked to brain development, in turn influenced by both brain structure and experience

**Always Relevant:** Continued (increased?) import for life-success, with environments increasingly complex & demanding

# It's All About ME (WOHOO)



# Effective Regulation Allows Us to:

- Organize & navigate our environmental context
- Understand the constraints of time & respond appropriately
- Identify personal incentives & appreciate immediate & delayed benefits
- Understand when and be able to inhibit our own behavior (including revealing too much)
- Recognize the wider implications of rules or behavioral expectations

Cognitively & emotionally integrate how space, time, motivation, inhibition and rules all interact!

# Spatial Capacity



# Motivation Capacity



INSTANT  
GRATIFICATION  
YOU NEED THIS. RIGHT NOW. ←





# Conceptual Capacity

- Don't Speak to Strangers...
  - Better yet, who is a stranger?
- Taking vs. Borrowing/ Boundaries
  - Does "it's okay now" mean it is "always okay"?
- "A Stitch in Time Saves Nine"

# Humor Comprehension

*O'Riley was on trial for armed robbery.*

*The jury came out and announced, "Not guilty."*

*"Wonderful," responded O'Riley. "Does that mean I can keep the money?"*

*(Suls, 1972, p. 90)*



# Faux Pas Test

*Tim was in a restaurant. He spilled his coffee on the floor by accident.*

*Jack was another person in the restaurant, standing by the cash register waiting to pay.*

*Tim went up to Jack and said “I’m terribly sorry, but I’ve spilled my coffee. Would you be able to mop it up?”*

- Where did the story take place?
- Did Tim know Jack was a customer?

# Interpreting Others



- Serious
- Ashamed
- Alarmed
- Bewildered



- Irritated
- Aghast
- Reflective
- Impatient

# Interpreting Others



- Relaxed
- Upset
- Surprised
- Excited



- Feeling Sorry
- Making Somebody Do Something
- Joking
- Relaxed

# Moving Forward...



- Can we develop/apply interventions?
- What about managing day-to-day?
- Challenges?

# Do You Mean *Eliminate* Deficits?

- Can engage training programs, teach interpersonal skills, appropriate behavior, etc.
- The long-term outcome influenced by consistency in feedback, opportunity to practice, “booster” trainings
- Challenging the limits of both neuroplasticity and real-world contexts

# Can Outcomes (LIFE) be Improved?

Absolutely!

- Return to what EFs do for us:
  - Simply: Allow us to navigate our worlds to achieve our goals /meet its demands: support Self-Regulation

FIRST: Know what you want, what kinds of things help you feel like you fit in, that you are contributing?

SECOND: Identify and adjust those things that keep tripping you up.

# NOT SO SIMPLE

- Sounds like: **IF ONLY YOU'D** ... then ...
- FASD and many other disorders are marked by the **inability to consistently apply** processes that support EF
- **NOT a matter of will-power**, it is a matter of fundamental brain function
- Real-world **impact isn't on sorting cards or rings on a peg**

**Navigating the world that has deadlines, conflict and requires nuance**

# Is it back to the Beginning?

- **NO!**
- Proper assessment with recognition that “higher” order functions may be dependent on lower level functions, but are separate
- Requires innovation that considers behavior in real-world settings
- Evangelical support for more responsive level of care approach & support



# Action Steps

- Emphasize distinction between intent and outcome
- Allow multiple points of service entry and multiple opportunities across time
- Continuing Support Personnel: Focusing on dynamic objectives
- Increase awareness among employers, not just of challenges, but effective fixes
- Continue work with government/legal systems
- **Promote/provide Opportunities**

# Reason for Optimism

Everyone has Weaknesses that Challenge Life Success

FASD may be characterized by diverse and significant challenges: Pervasive is Inefficient Self-Regulation

- *But*, if recognized as neurobehavioral dysregulation, not one of intent/will-power
- *AND* if assessed in “relevant” terms
- Opportunities for management as a chronic condition within an informed and engaged community

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