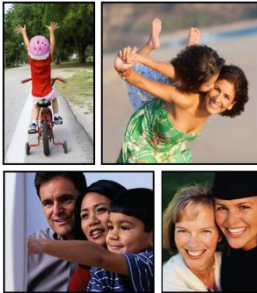


# BRAIN BASED BEHAVIOR INVENTORY (BBB-I)



Brighten  
THE  
BRAIN

**[www.BrightentheBrain.com](http://www.BrightentheBrain.com)**  
**970-352-8873**

# APPRECIATION- MVP AWARDS



# APPRECIATIONS – MVP AWARDS



# APPRECIATIONS – MVP AWARDS





# APPRECIATIONS – MVP AWARDS



# APPRECIATIONS – MVP AWARDS



# APPRECIATIONS – MVP AWARDS



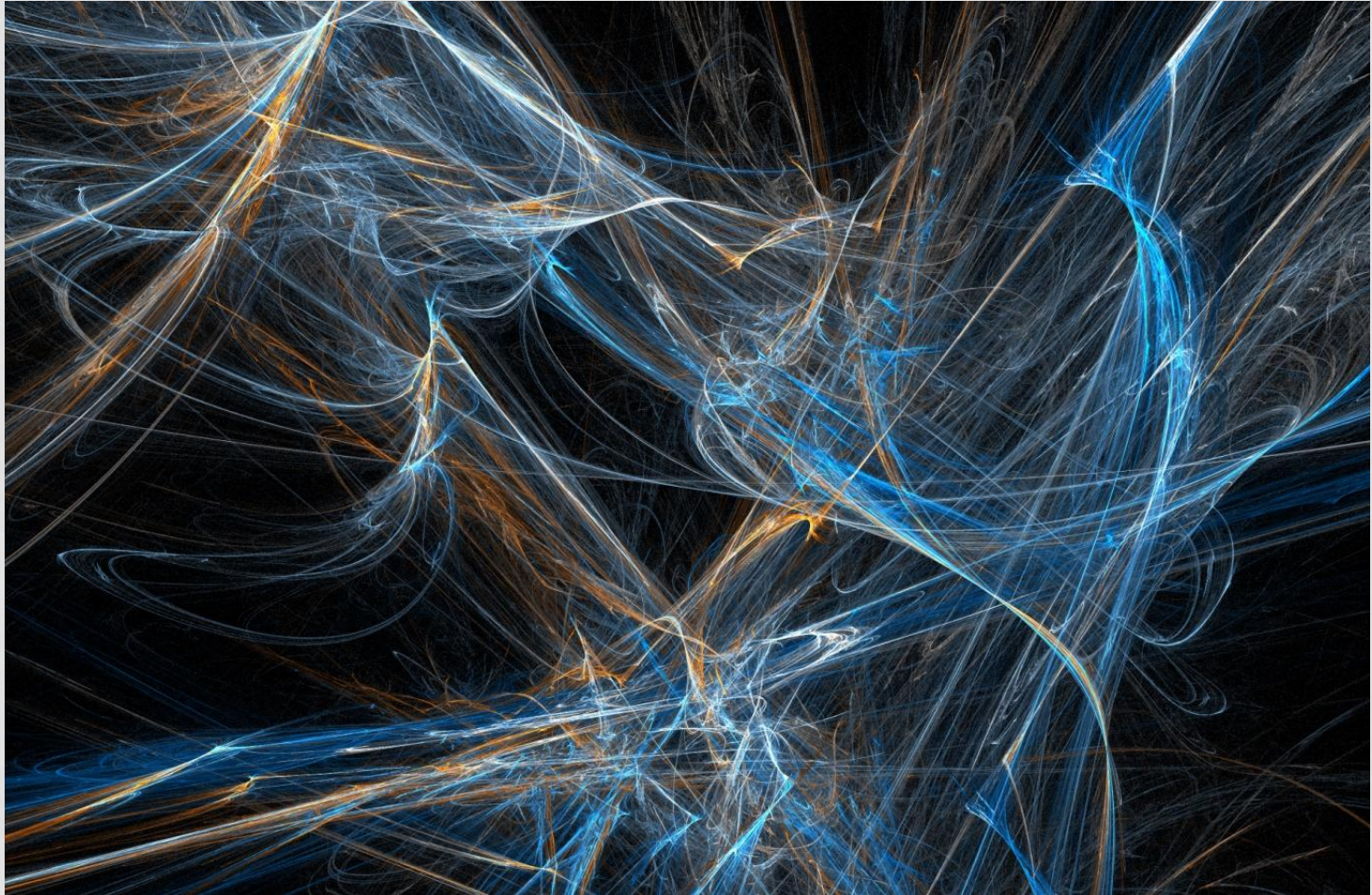


# NON-LINEAR DYNAMIC SYSTEM: TIME





# NON LINEAR DYNAMIC SYSTEM: CHAOS / COMPLEXITY

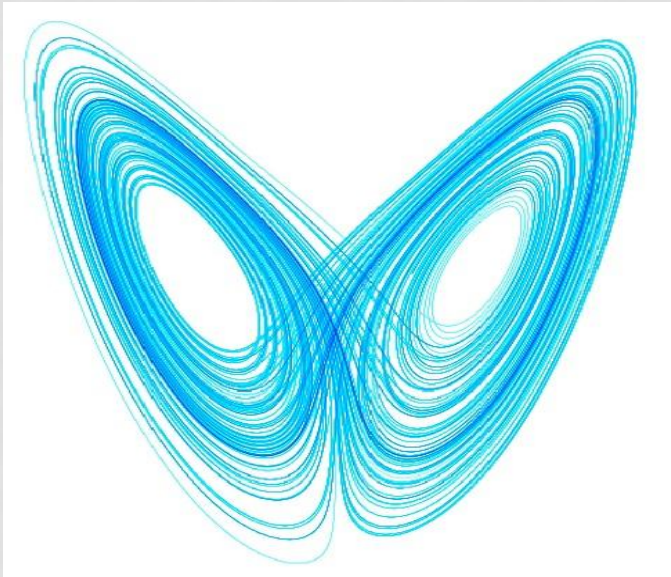


# NONLINEAR DYNAMIC SYSTEM: SELF ORGANIZATION

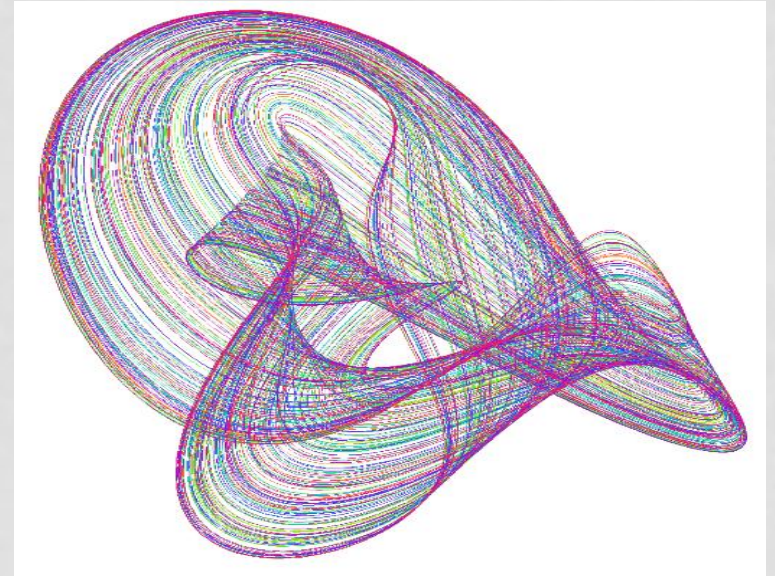




# STRANGE ATTRACTOR



**2 Dimensional Visual Attractor**



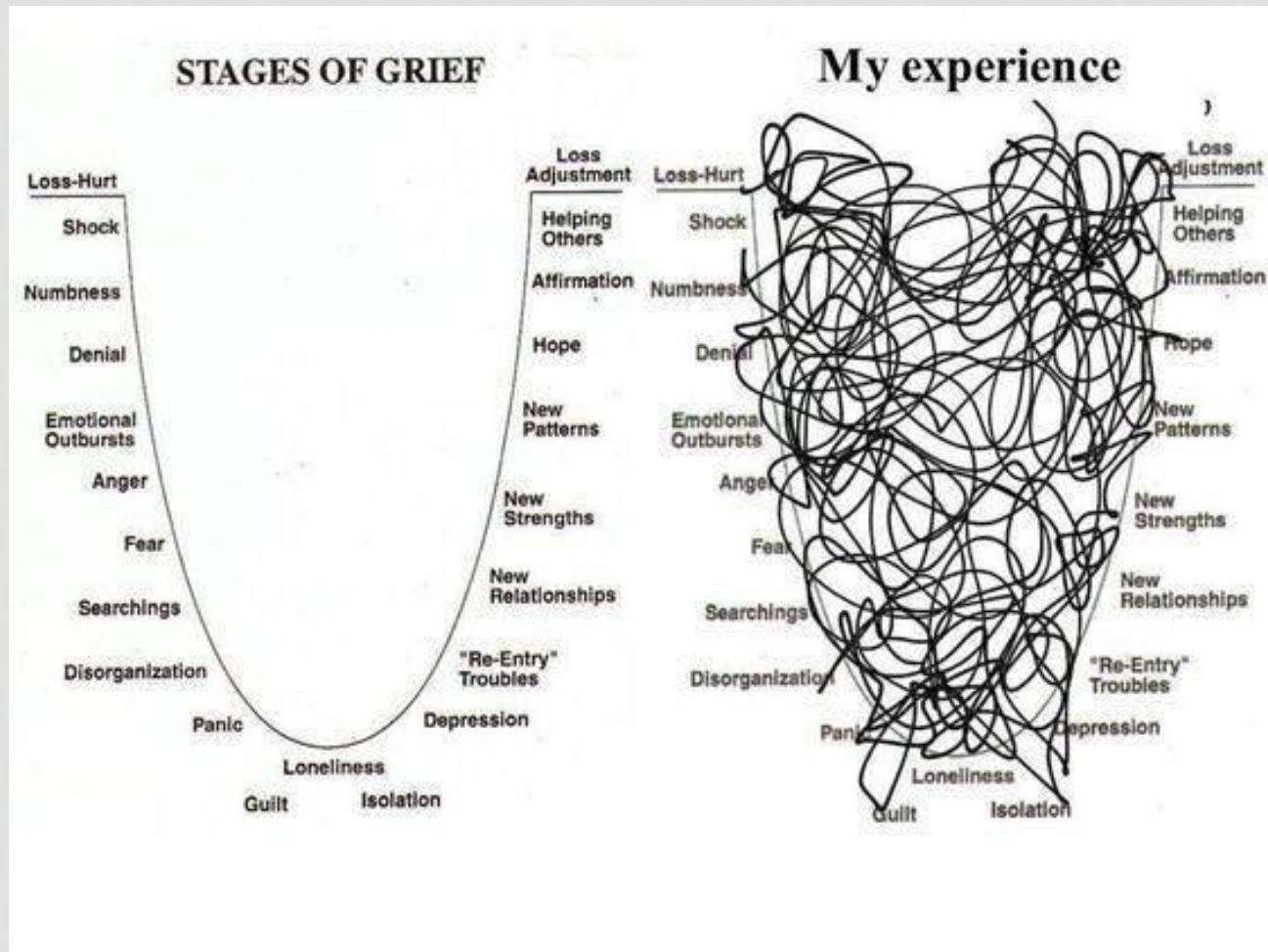
**3 Dimensional Visual Attractor**



# THE BRAIN AS A NONLINEAR DYNAMIC SYSTEM



# MEASURING A NONLINEAR DYNAMIC SYSTEM



# RECAP: RETROSPECTIVE ANALYSIS OF FAMILIES

- Independent Retrospective Analysis
- Independent Review by Artist, not formally trained in Psychology or other related field
- 20 males / 15 females
- 31 children ages 2 and up
- 4 adults
- Neuro-sequential progression
- What Changed???





## Issues Prior to Integrative Re-Solutions

## Improvements in Self Regulation

### Freeze

FROZEN AFFECT  
UNABLE TO EXPRESS EMOTIONS  
UNABLE TO ATTACH OR BOND WITH OTHERS  
NON-COMMUNICATIVE  
DEPRESSION, SADNESS, HOPELESSNESS, POWERLESSNESS  
ALTERED STATES  
LIMITED EMOTIONAL DEVELOPMENT  
(Frozen at a certain age)

BODY AWARENESS  
FEAR REGULATION  
PRIMARY ATTACHMENT STRENGTHENED  
RESOURCEFUL  
FLEXIBLE STRESS RESPONSE  
RESILIENCE

### Fight

TANTRUMS AND EMOTIONAL OUTBURSTS  
SELF-INFLICTED INJURY  
LYING AND MANIPULATING  
VIOLENT BEHAVIORS TOWARDS SELF AND OTHERS  
STEALING  
OPPOSITIONAL BEHAVIOR

EMOTIONAL REGULATION  
ANGER/VIOLENCE IS LESS FREQUENT, OF A  
SHORTER DURATION AND OF LESS INTENSITY  
INCREASED LEARNING CAPACITY/FRONTAL CORTEX  
INCREASED FOCUS/INCREASED CLARITY  
EMPATHY

### Flight

VICTIM MENTALITY  
HYPERACTIVITY, ANXIETY  
PTSD SYMPTOMS, SUICIDE ATTEMPTS  
SLEEP ISSUES, HEIGHTENED SENSORY ISSUES  
ESCAPING INTO FANTASY OR DISTRACTING ACTIVITIES  
LACK OF TRUST, INABILITY TO MAKE FRIENDS  
INABILITY TO FOCUS, MINIMAL ACADEMIC PROGRESS  
CHOOSING TO NOT PARTICIPATE IN GROUP ACTIVITIES  
LACK OF JUDGEMENT & IMPULSIVE BEHAVIOR  
HEADACHES  
ELIMINATION-ESCAPE

SENSORY INTEGRATION  
SOCIAL AFFILIATION  
RELATIONSHIP FLEXIBILITY  
EMOTIONAL FLUIDITY  
TOLERANCE OF DIFFERENCES  
SLEEP REGULATION

## COGNITIVE COMPETENCY

# BRIGHTEN THE BRAIN

- Brighten the Brain - Trauma Effective <sup>TM</sup> process that facilitate for families and other providers that aims to:
  - Support families in understanding the non-linear dynamic process
  - Demonstrate to families what changes occur and how
  - Support parents to stay out of a good/bad right/wrong conversation
  - Functional Analysis that allows measurement of Quality of Life being transformed

# BRAIN BASED BEHAVIOR INVENTORY

<b>FREEZE Stuck Off</b>	Limited expression, non-reactive, emotional numbness		
	Limited communication, limited interaction		
	Detached, holding back emotions		
	Unable to articulate feelings in words		
	Unable to understand reason for upset		
	Does not make consistent eye contact		
	Overly pleasing, smiling when angry, wanting to be liked		
	Failing to ask for support or assistance		
	Has a facial expression that seldom changes even when mad, sad or happy, seems unresponsive to situation		
<b>FIGHT/FLIGHT Stuck On</b>	Attempts to console can escalate behavior		
	Easily irritated and annoyed, angry outbursts, loses temper, argues		
	Has mood swings (may be extremely happy one minute, extremely sad the next or quickly vacillate between anger and unresponsive/checking out)		
	Exaggerated or inappropriate expressions of emotion or doesn't answer when people talk to him/her		
	Self-conscious, embarrassed, hypersensitive, takes comments from others personally, thinks others are mad at them		
	Has difficulty modulating tone of voice, eye rolling or exasperated facial expression		
	Sudden and extreme emotional reactions(may look like an overreaction)		
	Does not show regret, or remorse after misbehaving		
	Feels unsafe- fears he/she might think or do something bad		
<b>FREEDOM Balanced</b>	Express their own feelings clearly and understandably		
	Respond compassionately towards the emotions and feelings of others, offers acts of kindness to others, show that they care		
	Has empathy and compassion for self, able to express their needs, kind and gentle with self		
	Able to take someone else's perspective and balance needs of both self and others		
	Able to regulate and calm self, modulate tone of voice and facial cues (smiling interactive, relaxed)		
	Shows remorse or regret after misbehaving, apologizes to others when wrong		
	Able to make requests		
	Able to maintain eye contact		
	Able to accurately read social cues from others		



# COHERENCE CONGRUENCE AIMS

- Vertical and horizontal alignment
- Within Domain
- Across Constructs
- Among Overall Consistency

# CROSS REFERENCING- TO CREATE FUNCTIONAL ANALYSIS ( NOT DIAGNOSIS)

- Across Major testing instruments currently in use that support diagnostic criteria and used in a functional way to demonstrate change not support diagnostics.
- Across key components of strength based concepts; such as Emotional Intelligence, Resiliency, etc.

# WHY IS THE BBB-I GROUNDBREAKING?





# BBBI AIMS

- The aim of creating the BBB-I is to develop a behavioral measurement procedure that can be used and/or applied in a wide variety of ways. It is a tool that will support the movement from Aristotle science, with its linear static diagnosis underpinnings, across the bridge over to the quantum nonlinear dynamic process.
- We developed the BBB-I so it can be cross correlated with other reliable and valid instruments. It is fluid in acknowledging that the relationships between its variables are not linear, thus noting that as one variable changes, the other ones do not necessarily change at all or in proportion.
- The BBB-I is sensitive to the initial conditions of each persons' individual brain within the family system. We notably see that even a small shift can cause significant changes in the family system.
- The BBB-I is used to measure complex behavioral data across domains to track functional change so that parents have a meaningful way to compare behavior before and after services occur with ease so they can visually see where the change has occurred.
- The BBB-I is intended to be used for a successful analysis of behavioral data across time .
- The BBB-I is part of a system that allows for the local interactions between family members to self organize, to move towards a state of equilibrium from dis-organization. We have structured the BBB-I to provide a framework for both parents and providers to understand what behaviors are indicative of safety concerns and need to be addressed first to stabilize and support the system as it moves towards .
- Finally, we strive to move away from any language that is embedded in a good/bad/right/wrong analysis. Such dualistic language structures can give voice and validation to underlying conceptual assumptions that can lead to stuck-ness, blame, shame, and insecurity.

# RAW DATA FROM BBB-I

- Frequency = number of times per week the child exhibited specific behaviors
- Duration = number of minutes per time the child exhibited specific behaviors



# INTENSITY

- Intensity = minutes per week child exhibited specific behaviors
  - Frequency \* Duration = Intensity
  - This measurement is capped at 10080 minutes, which is the total number of minutes in a week



VS.

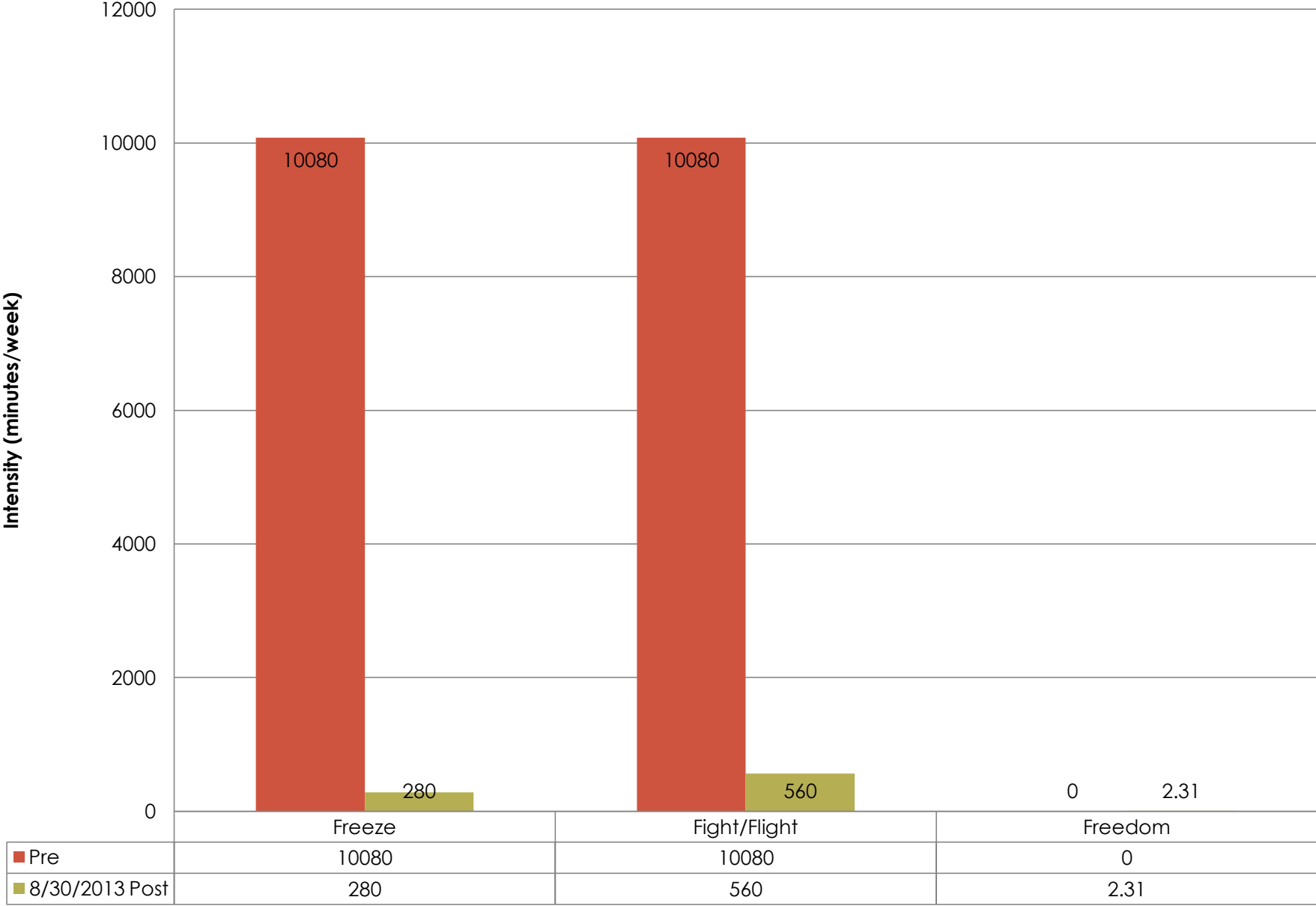




# BAR GRAPH COMPARING PRE/POST INTENSITY IN A SINGLE DOMAIN

- Each domain was broken into symptoms which were categorized into the 3 F-Areas
  - Freeze
  - Fight/Flight
  - Freedom
- The intensity of the symptoms in each F-Area was measured in Pre (red) and Post (green)

‘Adam’ Intensity of Capacity to Focus

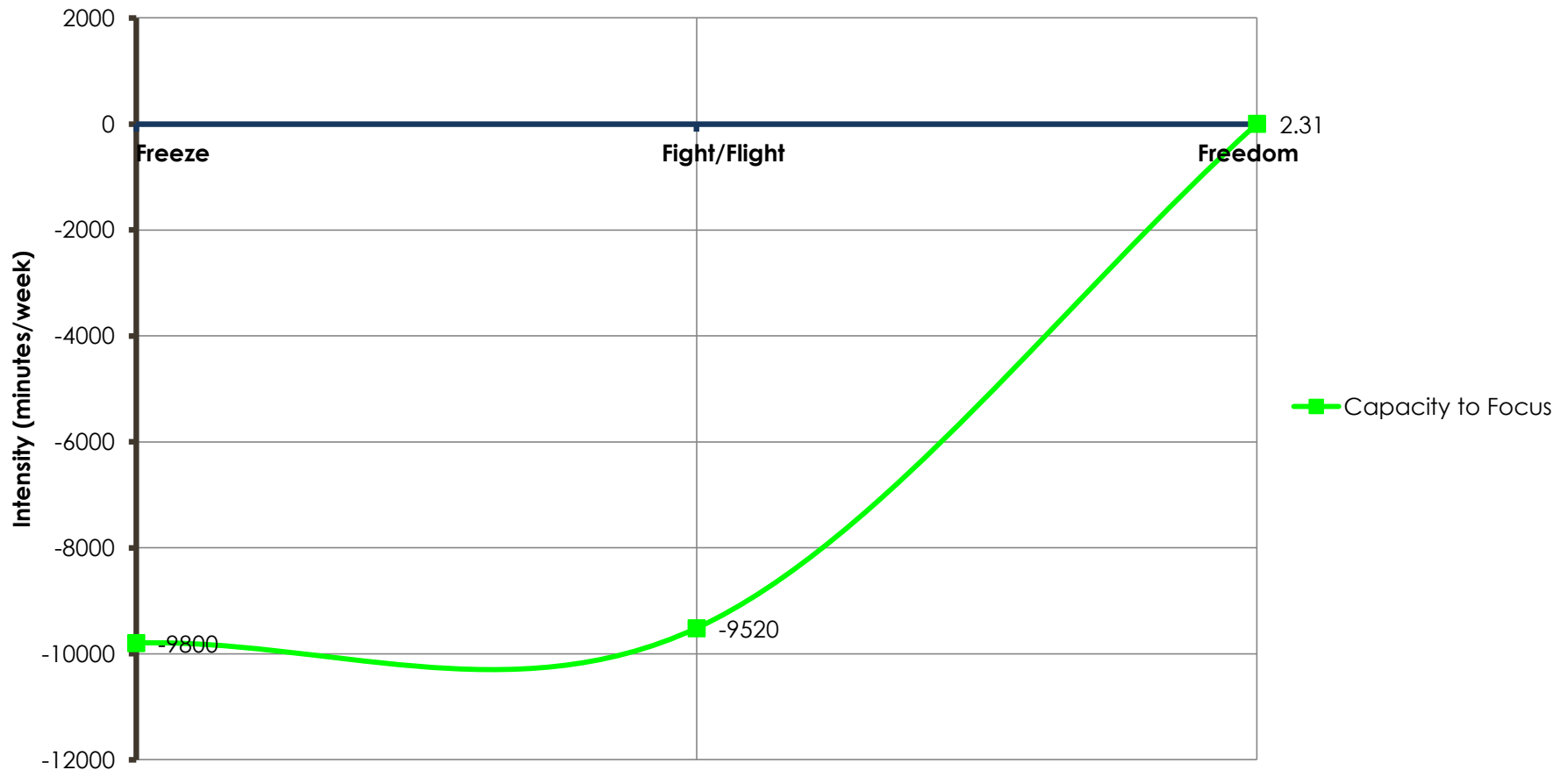


This line graphs the change in each F-area of a single domain.

The important things to look at are:

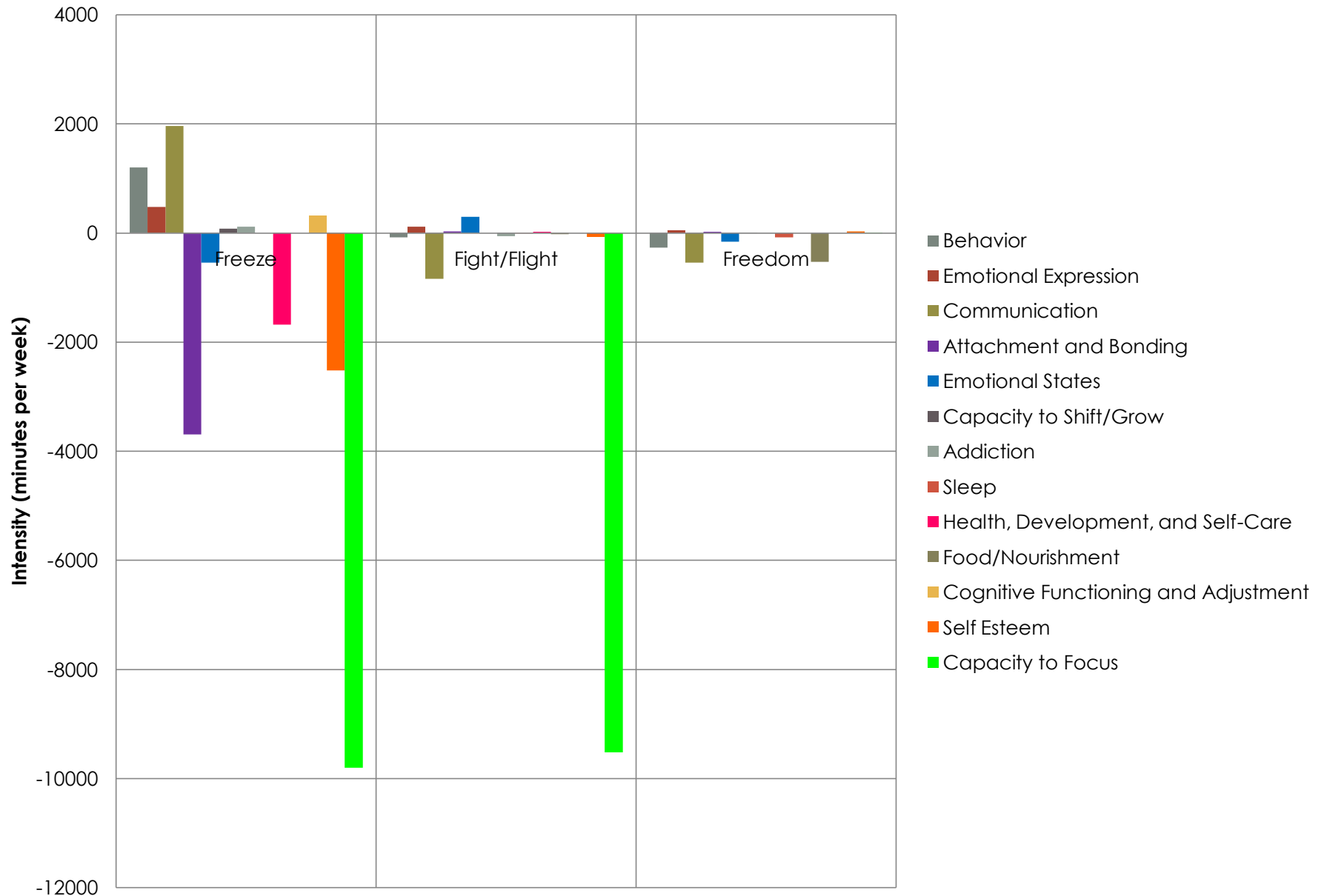
- Distance each graphed point is from zero
- Is a point positive or negative

### Adam Difference in Intensity of Capacity to Focus

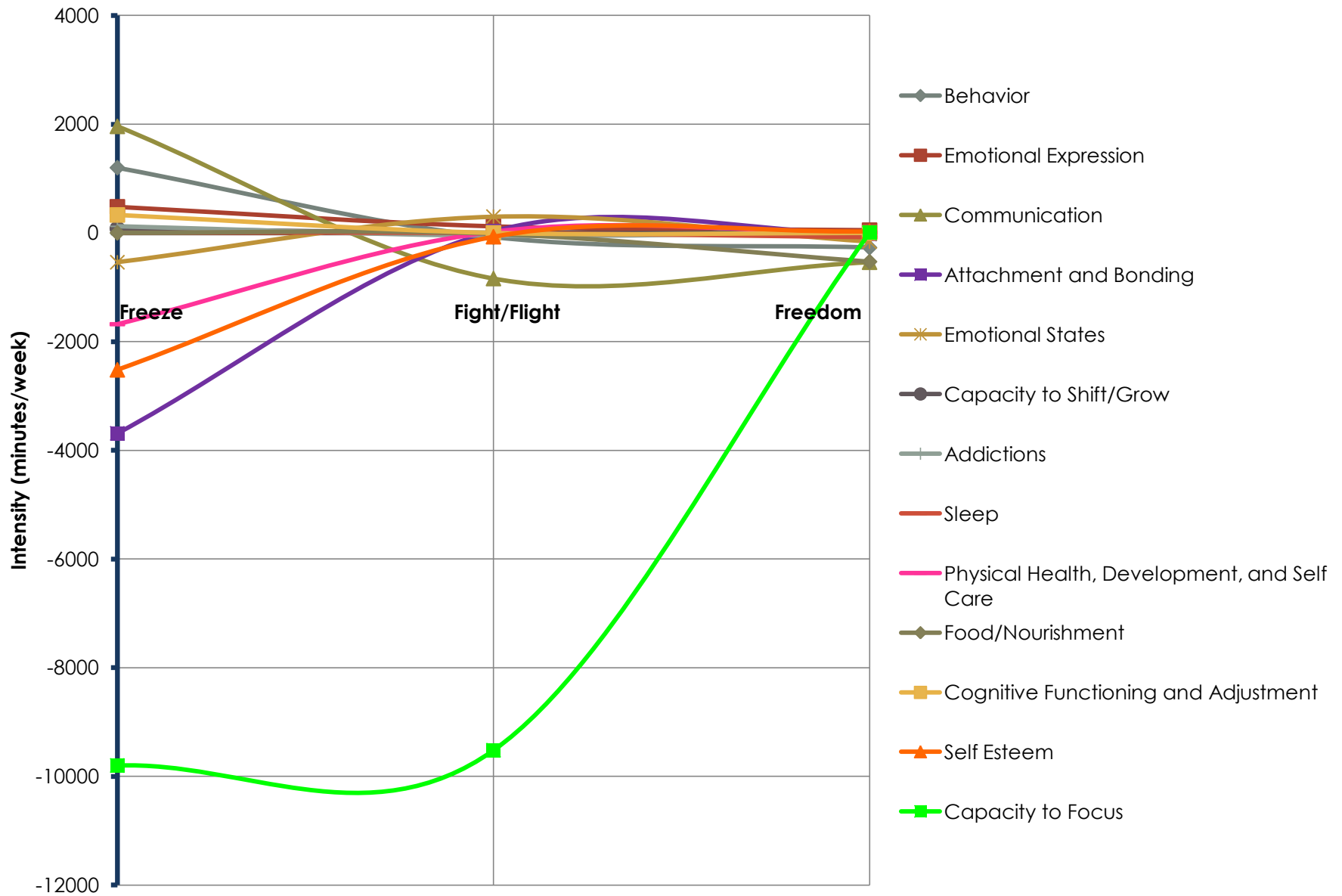




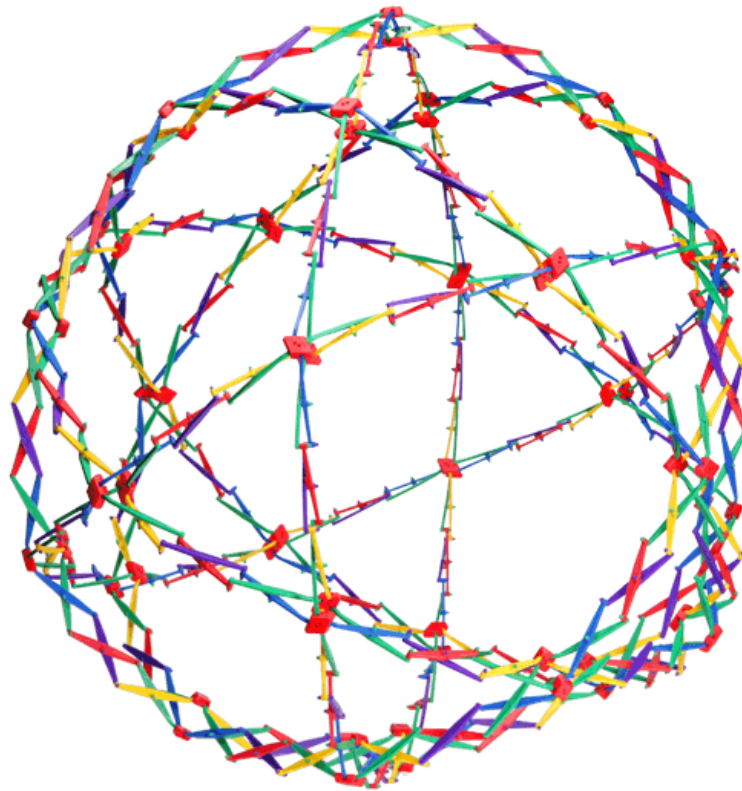
# Adam Difference in Intensity in All Domains Across F-Areas



# Adam Difference in Intensity Across F-Areas



# DOMAINS ARE INTERCONNECTED

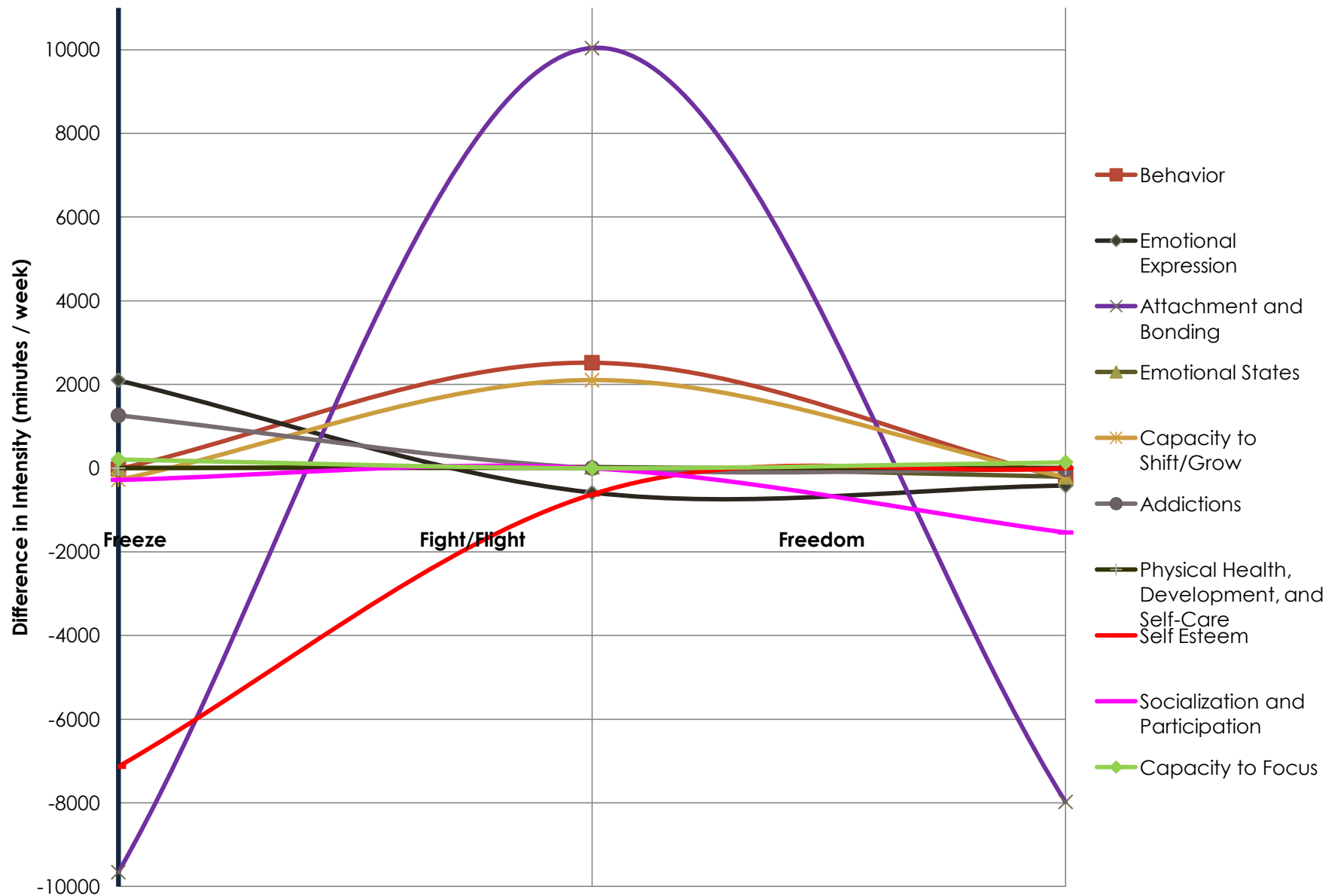




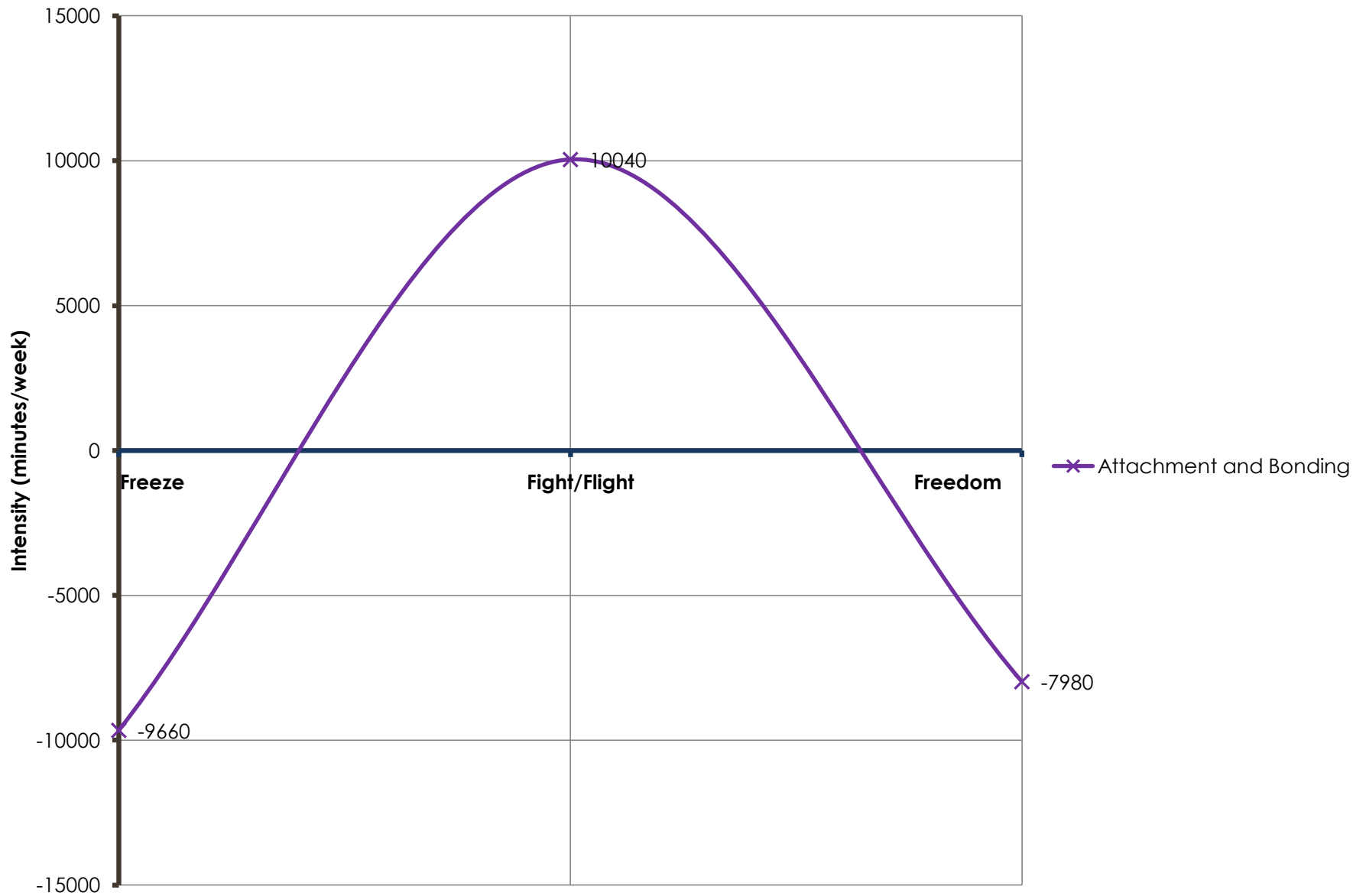
# EACH PERSON IS UNIQUE



# Rosie Differences in Intensity Between Pre and Post

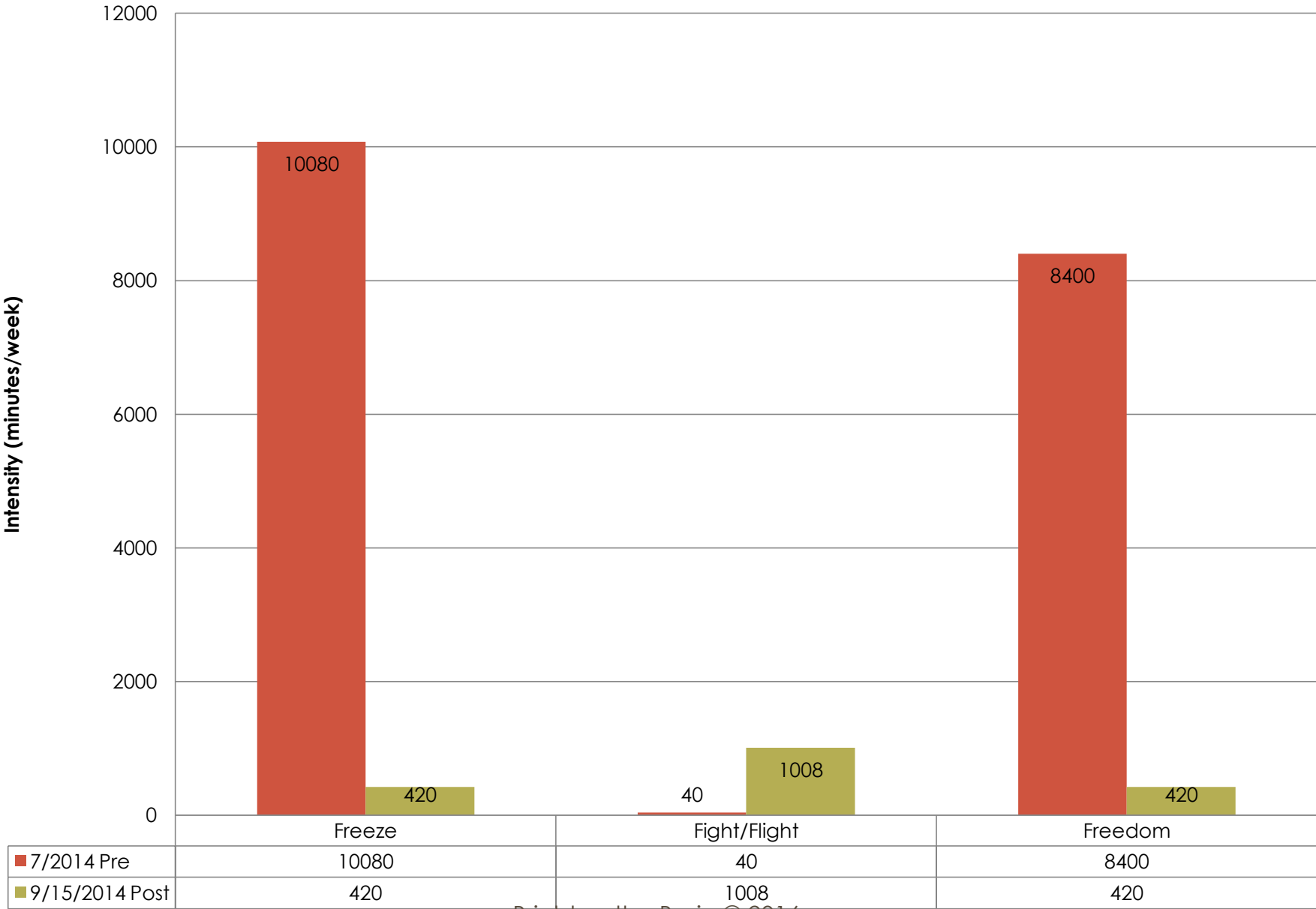


# Rosie Difference in Intensity of Attachment and Bonding





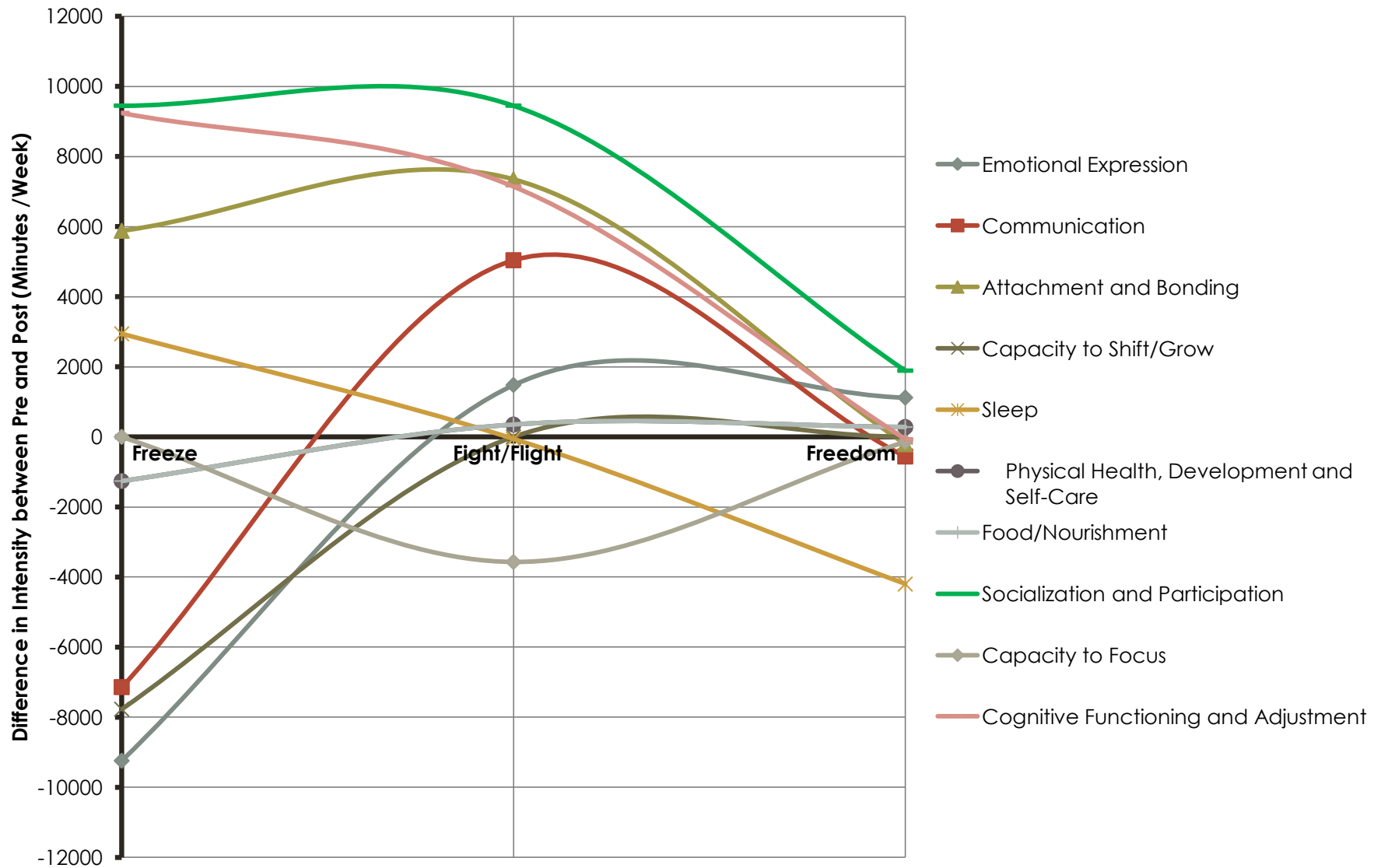
# Rosie Intensity of Attachment and Bonding



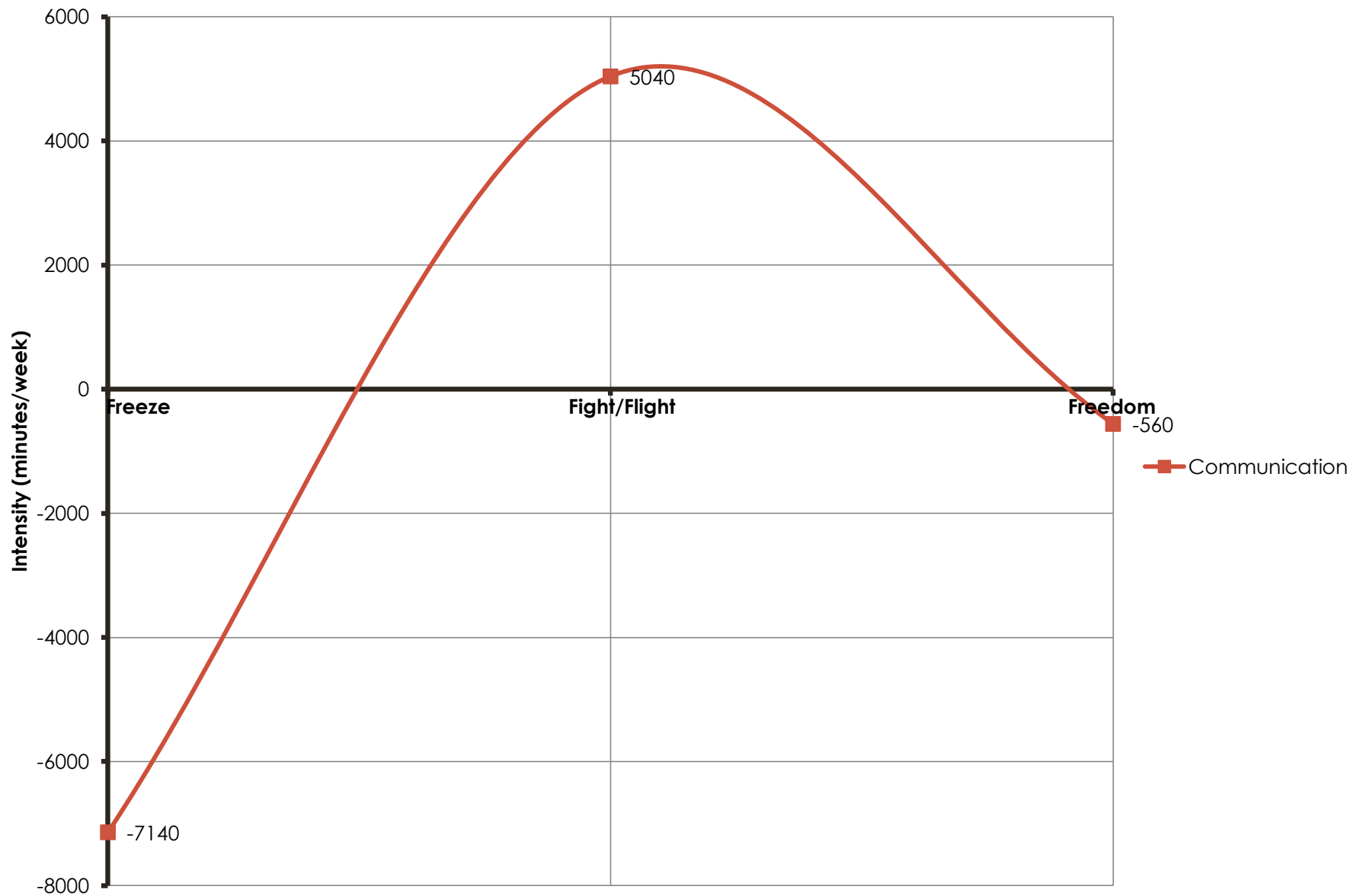
# MOVEMENT FROM FREEZE TO FIGHT/FLIGHT



# Jessie Difference in Intensity Across F-Areas Between Pre and Post

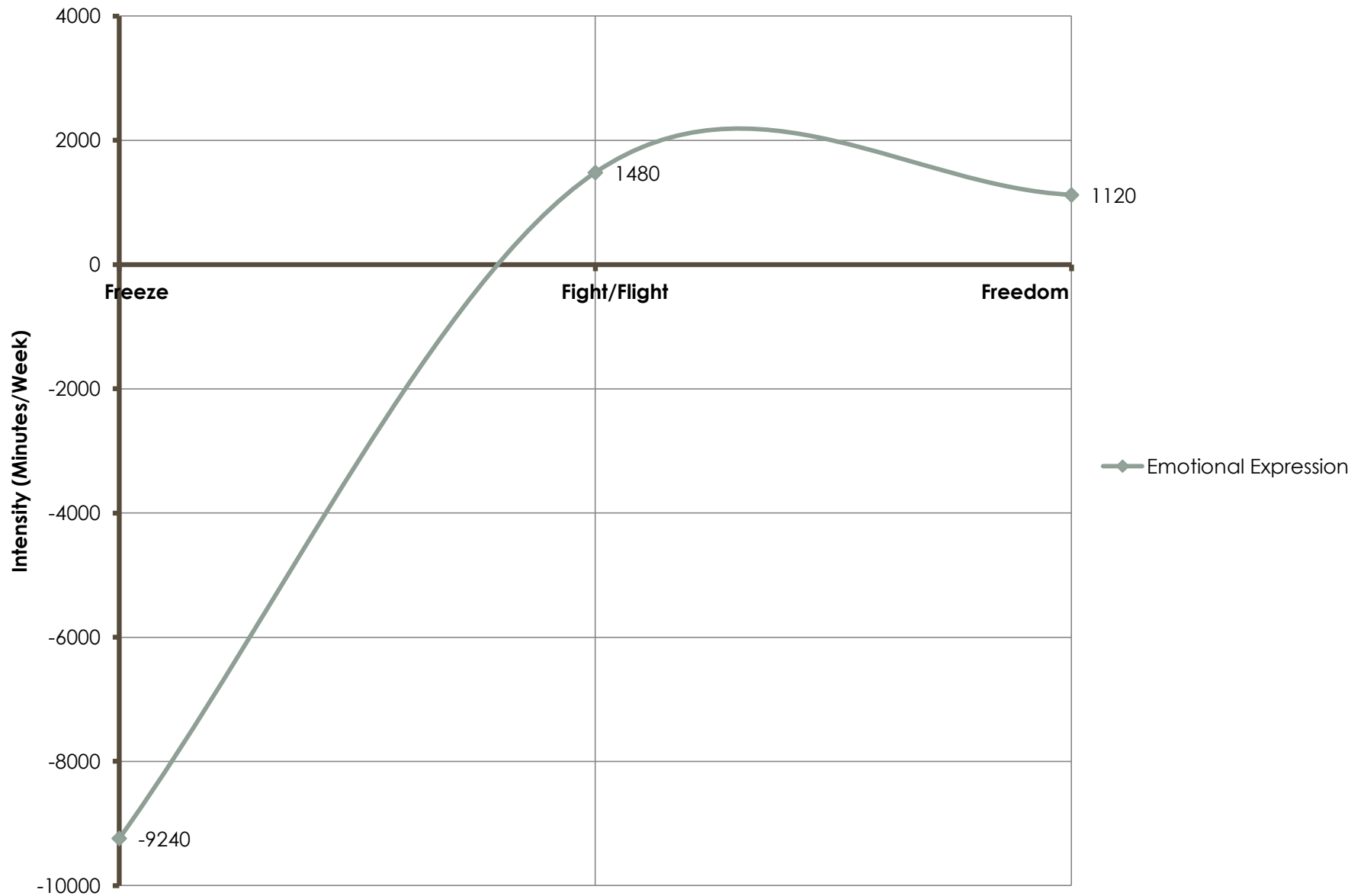


## Jessie Difference in Intensity of Communication





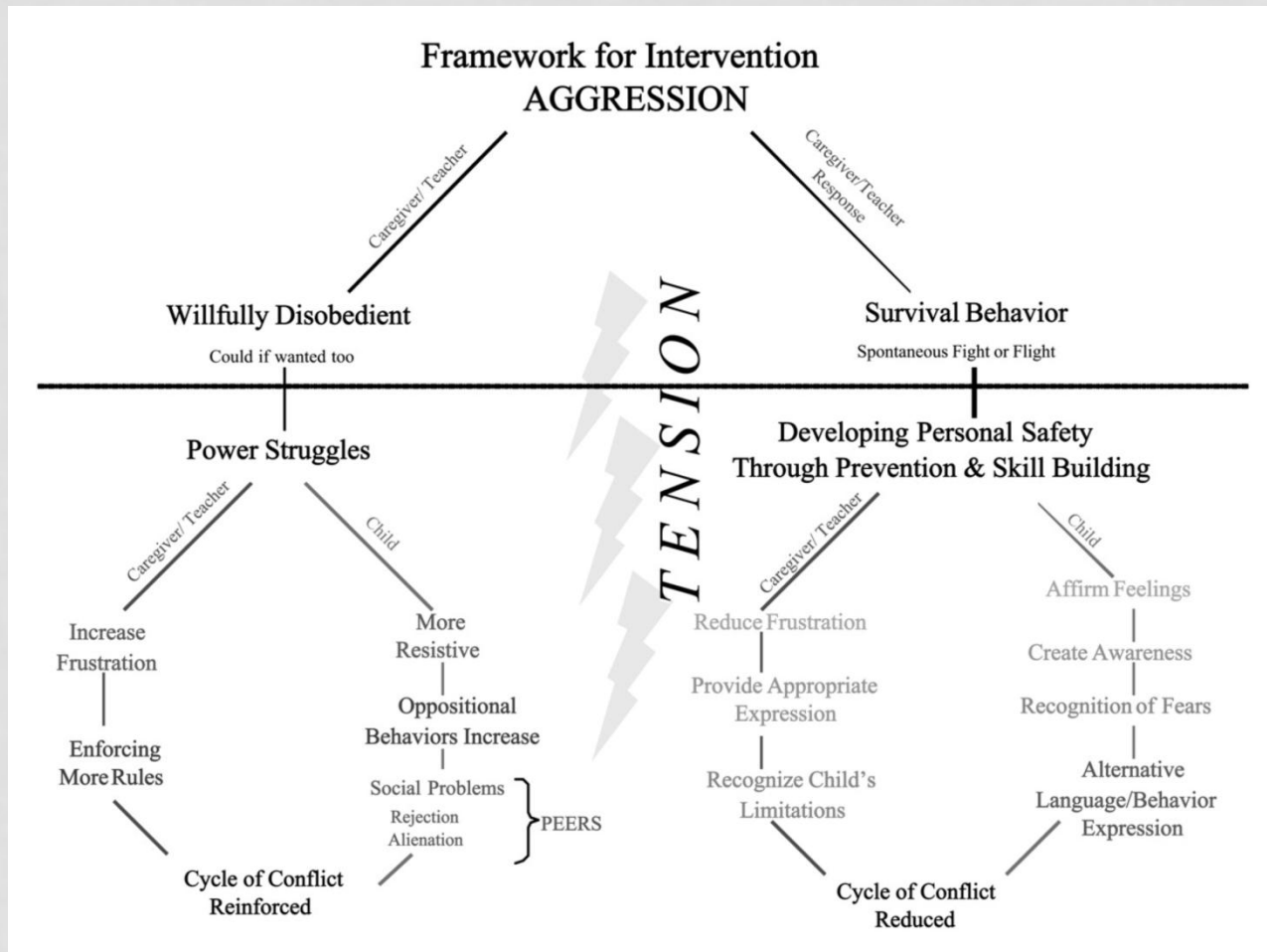
## Jessie Difference in Intensity of Emotional Expression



# STRENGTHS BASED ASSESSMENT

- Strength-Based Perspective: Beliefs
- All people have strengths
- A child can be motivated by how teachers, parents, and others respond to them.
- Concerns and strengths create a continuum within Domains
- Freedom to Choose/Flexibility underlying

# WHY DOES ALL OF THIS MATTER



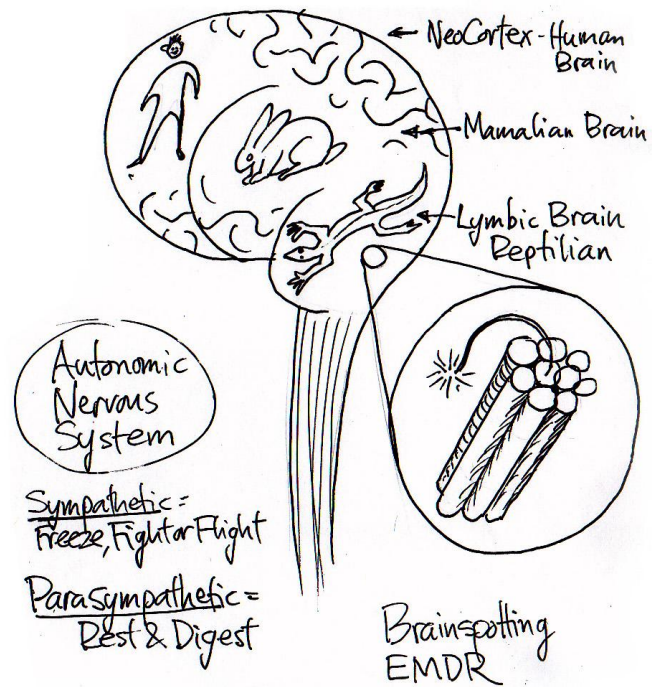
Framework for intervention for trauma/no FASD and trauma/FASD children (Henry, Black-Pond, and Sloane, 2004)  
Brighten the Brain © 2016

## Overlapping Behavioral Characteristics & Related Mental Health Diagnoses in Children

Overlapping Characteristics & Mental Health Diagnoses	FASD	ADD/ADHD	Sensory Int. Dys	Autism	Bi-Polar	RAD	Depression	CDD	Trauma	Poverty
	Organic	Organic	Organic	Organic	Mood	Mood	Mood	Mood	Environ	Environ
Easily distracted by extraneous stimuli	X	X								
Developmental Delay	X			X						
Feel Different from other people	X				X					
Often does not follow through on instructions	X	X					X	X	X	X
Often interrupts/intrudes	X	X	X	X	X		X			X
Often engages in activities without considering possible consequences	X	X	X	X	X					X
Often has difficulty organizing tasks & activities	X	X		X	X		X			X
Difficulty with transitions	X		X	X	X					
No impulse controls, acts hyperactive	X	X	X		X	X				
Sleep Disturbance	X				X		X		X	
Indiscriminately affectionate with strangers	X		X		X	X				
Lack of eye contact	X		X	X		X	X			
Not cuddly	X			X		X	X			
Lying about the obvious	X				X	X				
Learning lags: "Won't learn, some can't learn"	X		X			X			X	X
Incessant chatter, or abnormal speech patterns	X		X	X	X	X				
Increased startle response	X		X						X	
Emotionally volatile, often exhibit wide mood swings	X	X	X	X	X	X	X	X	X	
Depression develops, often in teen years	X	X				X			X	
Problems with social interactions	X			X	X		X			
Defect in speech and language, delays	X			X						
Over/under-responsive to stimuli	X	X	X	X						
Perseveration, inflexibility	X			X	X					
Escalation in response to stress	X		X	X	X		X		X	
Poor problem solving	X			X	X		X			
Difficulty seeing cause & effect	X			X						
Exceptional abilities in one area	X			X						
Guess at what "normal" is	X			X						
Lie when it would be easy to tell the truth	X				X	X				
Difficulty initiating, following through	X	X			X		X			
Difficulty with relationships	X		X	X	X	X	X			
Manage time poorly/lack of comprehension of time	X	X			X		X			X
Information processing difficulties speech/language: receptive vs. expressive	X			X						
Often loses temper	X		X		X		X	X	X	
Often argues with adults	X				X			X		
Often actively defies or refuses to comply	X				X			X		
Often blames others for his or her mistakes	X	X			X		X	X		
Is often touchy or easily annoyed by others	X				X		X	X		
Is often angry and resentful	X						X	X		

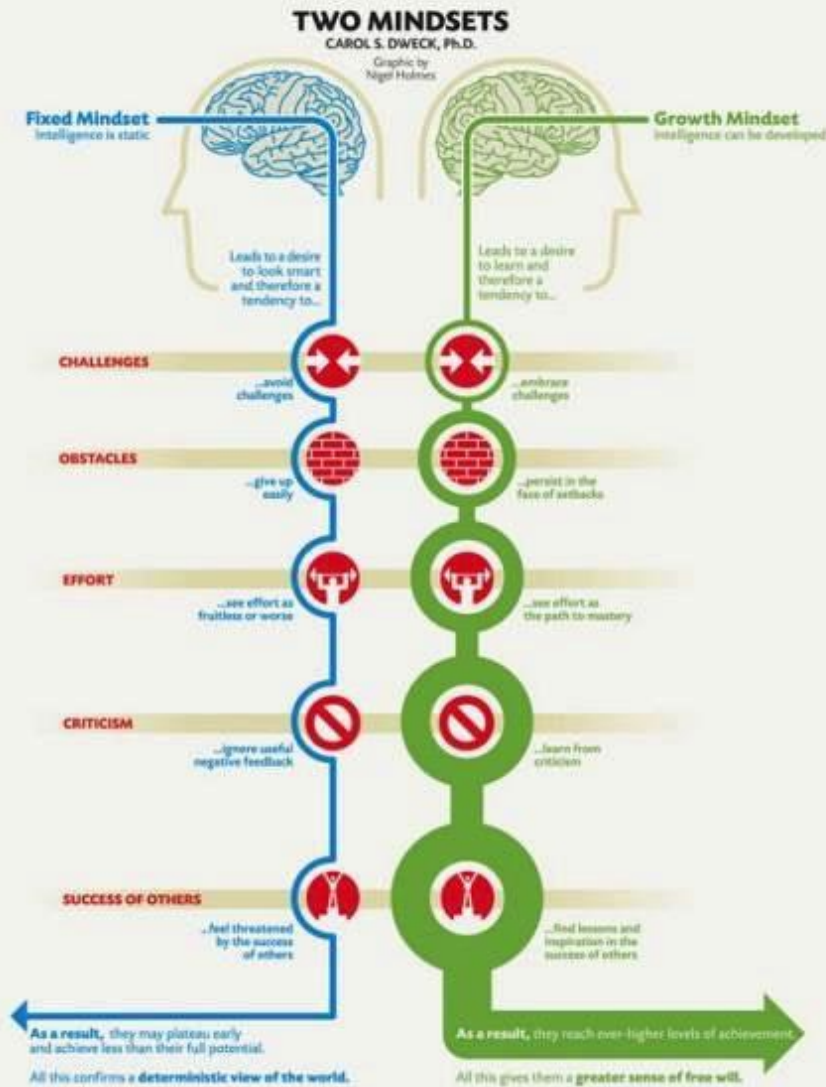
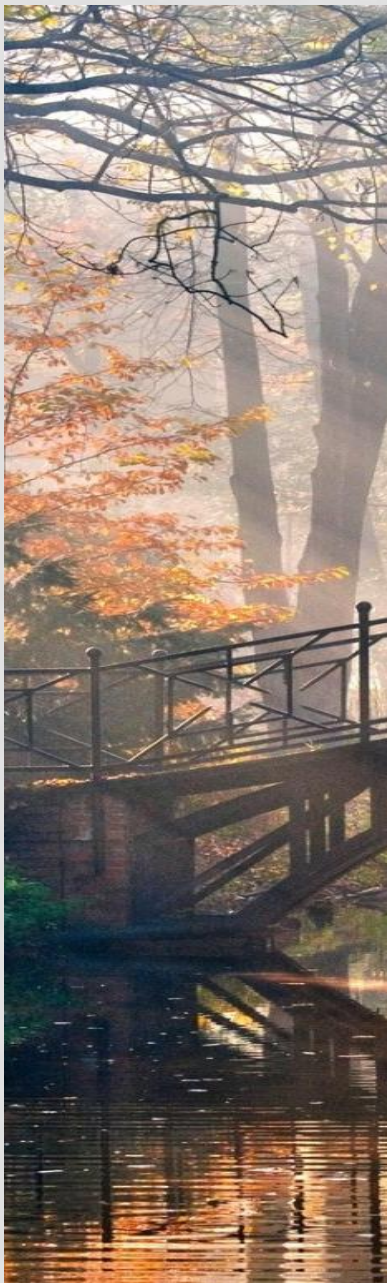


## Triune Brain (3 Part)



# STRUCTURE WORKS ACROSS MULTIPLE VARIABLES- FAMILIES AND ACROSS CLINICIANS

- 3 different clinicians trained by BTB provided the services
- Child served was 18mnth, 10yrs old and 14 with severe DD.
- Families where Self referred, DHS referral and School referrals



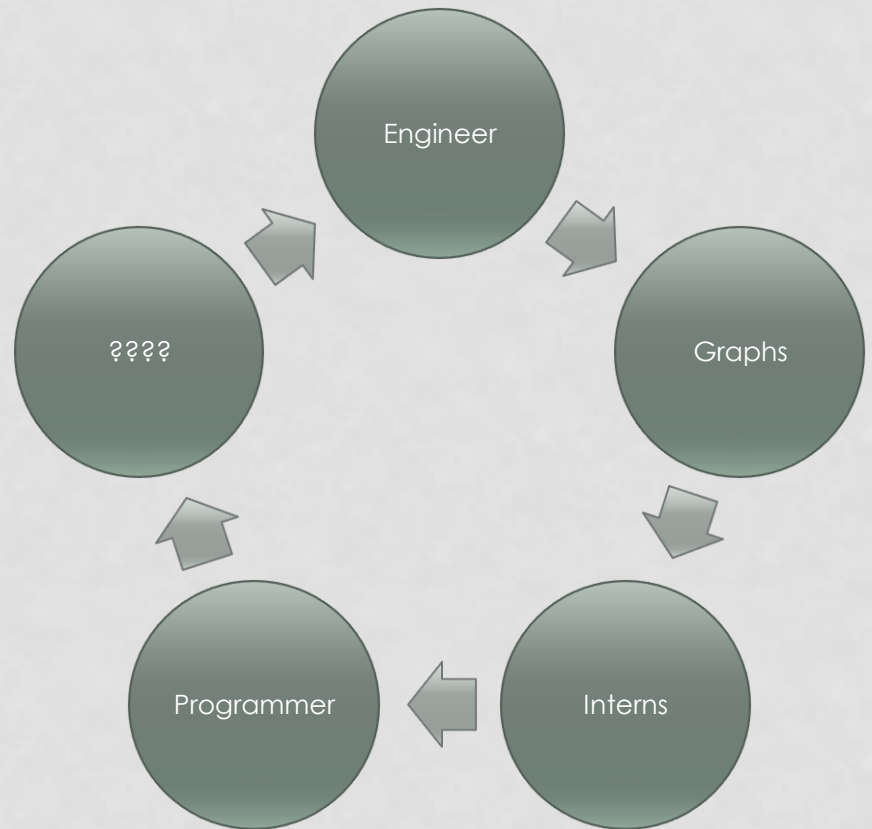


# STRANGE ATTRACTOR: LOVE





# STRANGE ATTRACTOR



# A MORE COMPLEX LANGUAGE





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