

Trauma, Self-Regulation, and Educational Outcomes

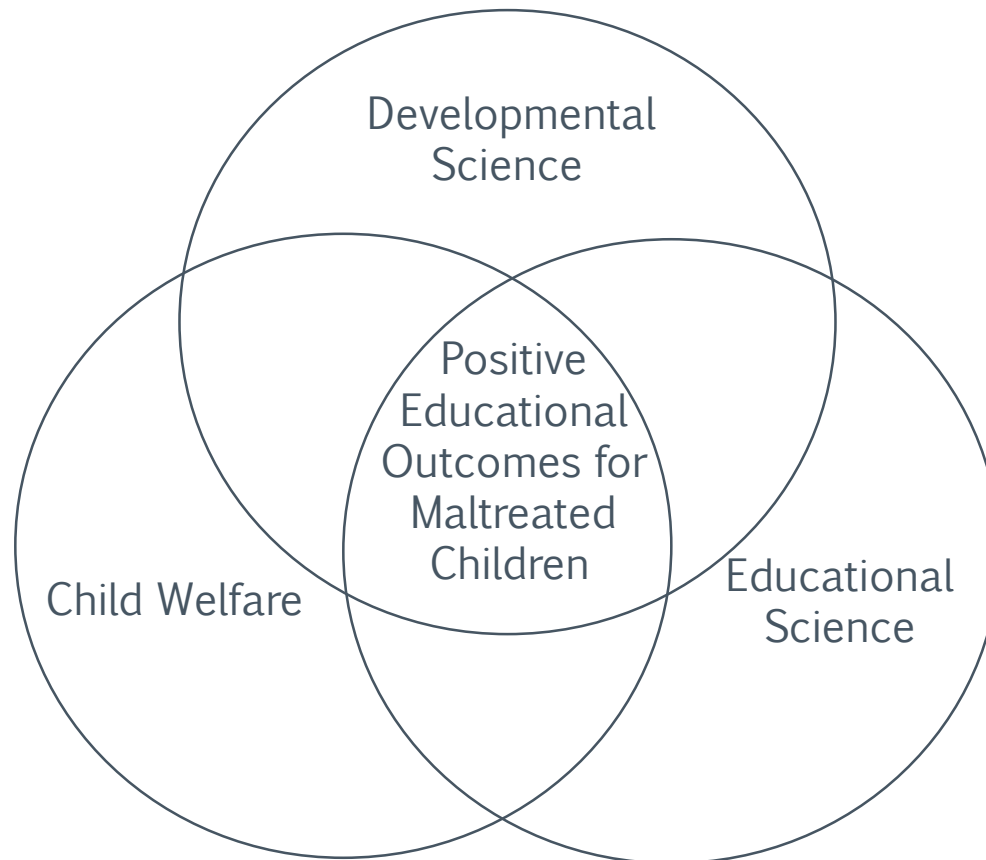
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October 10, 2016

Agenda

- › Definition of trauma
- › Self-regulation – framework for understanding
- › Maltreatment and self-regulation
- › Impact on academic achievement

Interdisciplinary Perspectives to Promote Educational Outcomes



Child Traumatic Stress

- › Occurs when children are exposed to traumatic events or situations, which overwhelms their capacity to cope
(The National Child Traumatic Stress Network)

- › Experienced under two different sets of circumstances:
 1. Acute traumatic events
 - School violence
 - Natural disasters
 - Sudden or violent loss of a loved one
 2. Chronic traumatic situations
 - Complex trauma**
 - Intimate Partner Violence
 - Wars and other political violence

Complex Trauma

- › Describes children's exposure to multiple or prolonged traumatic events and the impact of this exposure on development
(The National Child Traumatic Stress Network)
- › Typically involves the simultaneous or sequential occurrence of child maltreatment that is:
 - Chronic
 - Begins in early childhood
 - Occurs with primary caregivers
- › Often sets off a chain of events leading to subsequent or repeated trauma exposure later in life

Maltreatment Rates

- › A nationally estimated 3.2 million children received a Child Protective Services (CPS) response in 2014
- › 700,000 were substantiated victims of child abuse and neglect in the U.S.

(Administration for Children and Families, 2014)

Maltreatment Report Sources

Table 2-2 Report Sources, 2010-2014

Report Sources	Number				
	2010	2011	2012	2013	2014
PROFESSIONAL					
Child Daycare Providers	14,189	14,494	14,545	13,863	13,974
Education Personnel	313,763	326,072	347,840	346,930	364,782
Foster Care Providers	10,130	9,380	9,189	9,181	9,324
Legal and Law Enforcement Personnel	318,347	339,428	349,168	347,892	372,750
Medical Personnel	156,675	169,424	177,802	178,650	190,298
Mental Health Personnel	89,335	95,809	97,914	108,597	116,148
Social Services Personnel	219,634	214,867	230,713	218,135	226,083
Total Professionals	1,122,073	1,169,474	1,227,171	1,223,248	1,293,359
NONPROFESSIONAL					
Alleged Perpetrators	879	734	708	788	1,129
Alleged Victims	8,047	7,847	7,643	6,477	6,432
Friends and Neighbors	83,962	89,594	92,981	92,723	89,759
Other Relatives	132,411	136,290	138,602	136,690	145,128
Parents	130,730	132,246	134,647	131,506	140,900
Total Nonprofessionals	356,029	366,711	374,581	368,184	383,348
UNCLASSIFIED					
Anonymous Sources	171,179	177,386	179,094	177,152	167,406
Other	151,836	157,463	156,723	148,892	157,260
Unknown	59,974	79,120	71,340	64,270	59,934
Total Unclassified	382,989	413,969	407,157	390,314	384,600
National Reporting States	1,861,091	1,950,154	2,008,909	1,981,746	2,061,307
	50	50	50	49	50

Child Daycare Providers	14,189	14,494	14,545	13,863	13,974
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Source: Administration for Children and Families, 2014

The Role of Educators in Preventing and Responding to Maltreatment

- › Recognizing child abuse and neglect
- › Reporting child abuse and neglect
- › Provision of support after incidence reports
- › Prevention of child abuse and neglect
- › Trauma-informed teaching strategies

(Crosson-Tower, 2003)

Educational Outcomes

Maltreatment



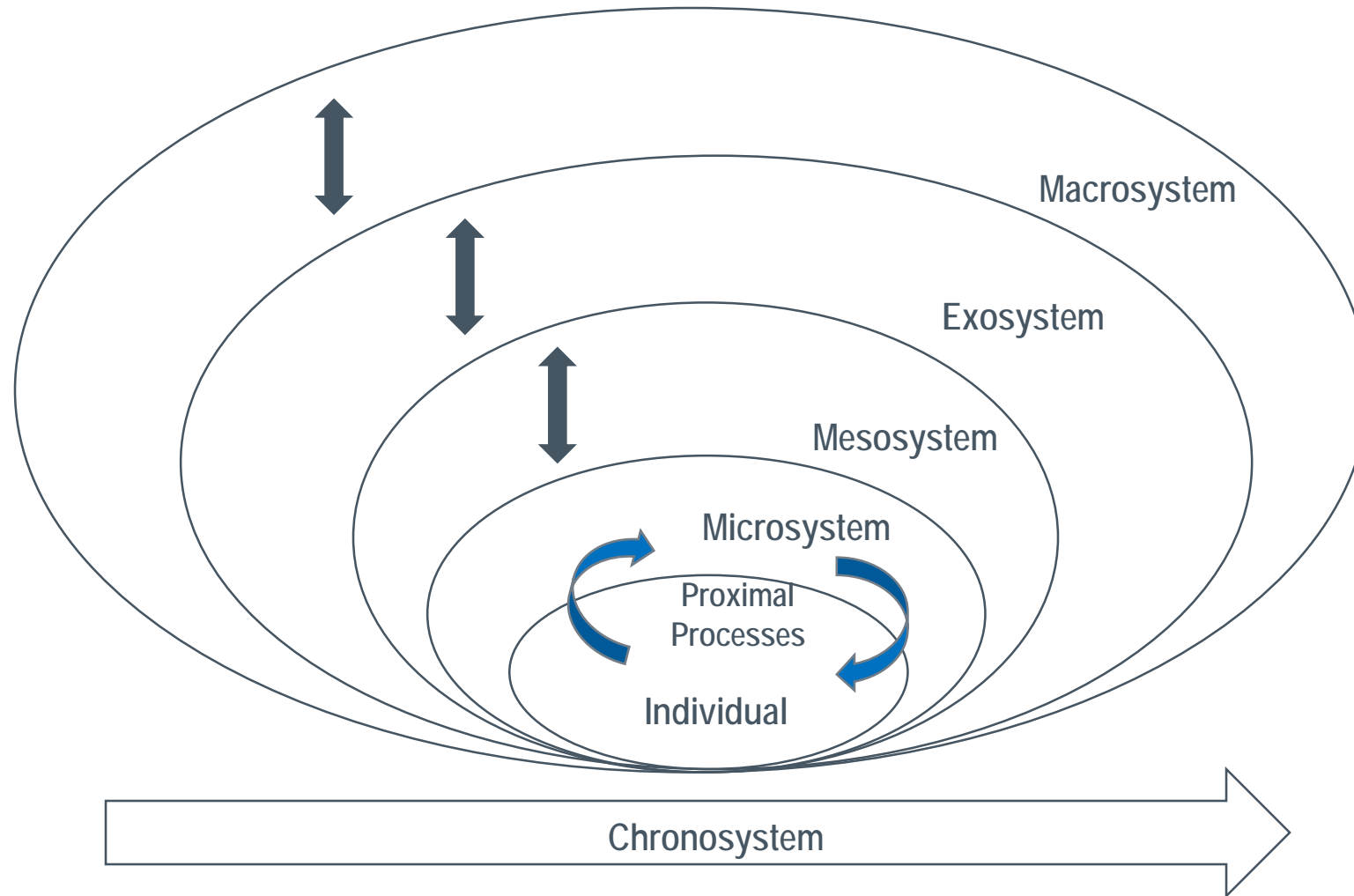
Educational
Outcomes

Educational Outcomes

Maltreated children in elementary and high school
(when compared to others):

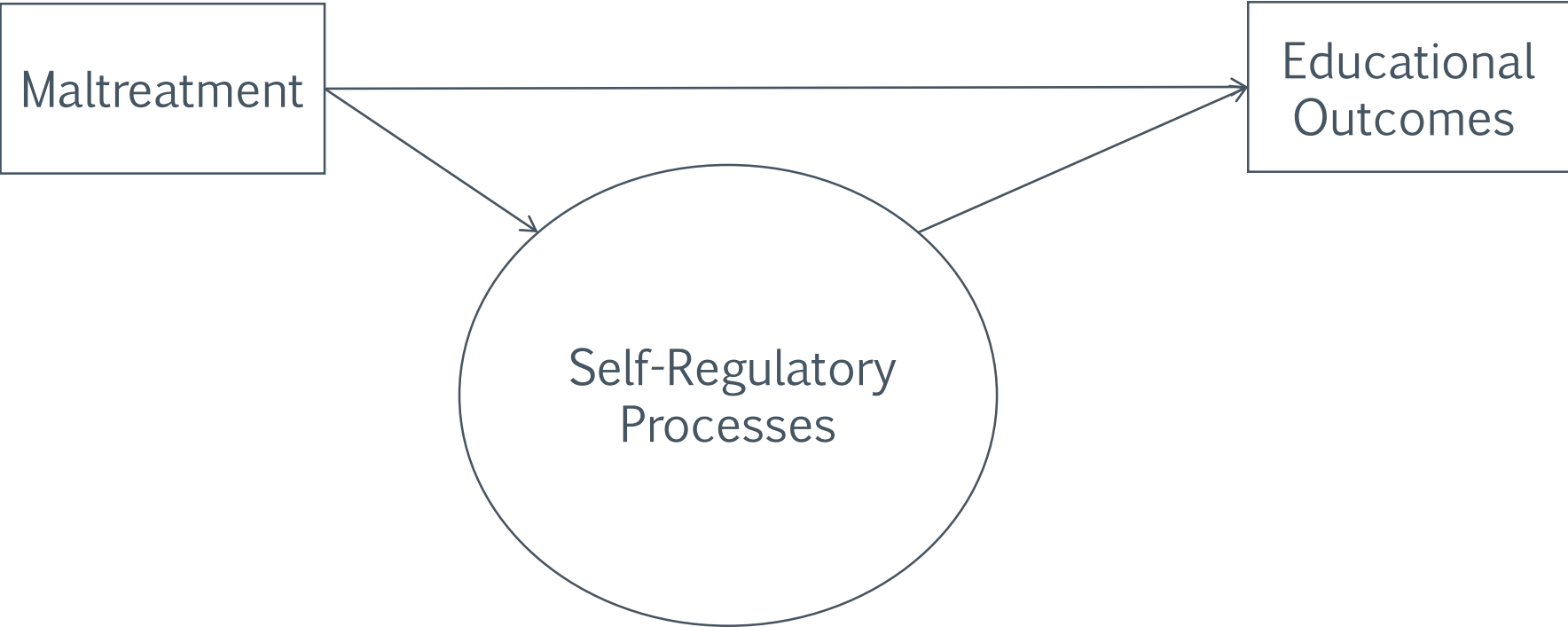
- › Have increased absenteeism rates
(Leiter, 2007; Rouse & Fantuzzo, 2009)
- › Attain lower grades
(Slade & Wissow, 2007)
- › Are more likely to have special education placements
(Stone, 2007)
- › Have lower scores on standardized reading and math assessments
(Coohey et al., 2011; Crozier & Barth, 2005)

Theoretical Framework



Source: Adapted from Bronfenbrenner & Morris (2006); Research and Training Center on Community Living (2013)

Mechanisms Linking Maltreatment and Educational Outcomes



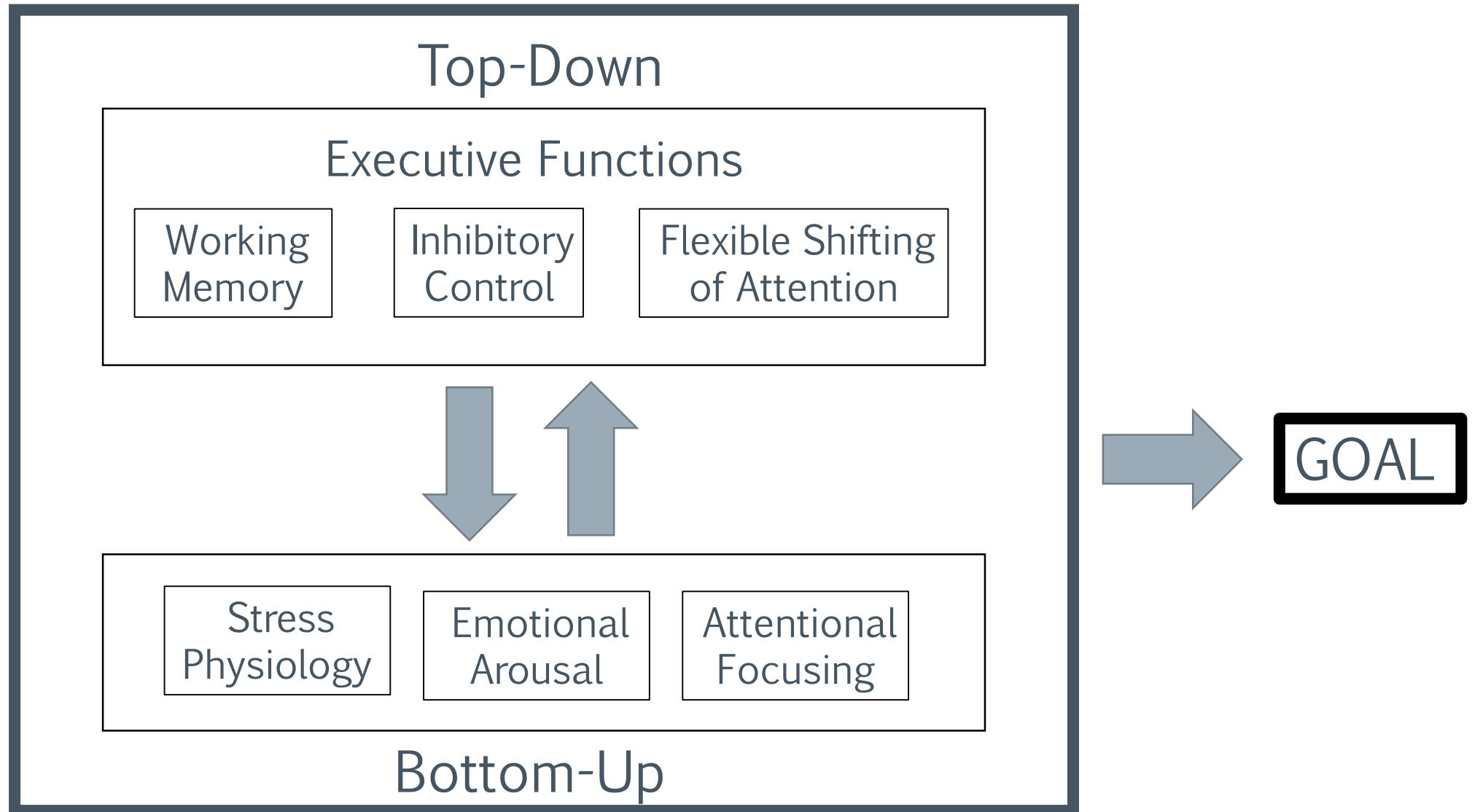
Self-Regulation

- › Defined as a biobehavioral system that enables the volitional control of attention and emotional arousal for the purpose of reflective, goal-directed action

(Blair & Raver, 2012)

- › Composed of hierarchically organized and reciprocally integrated aspects of functioning in the following domains:
 - Behavioral
 - Cognitive
 - Emotional
 - Physiological

Hierarchical Organization of Self-Regulation Domains



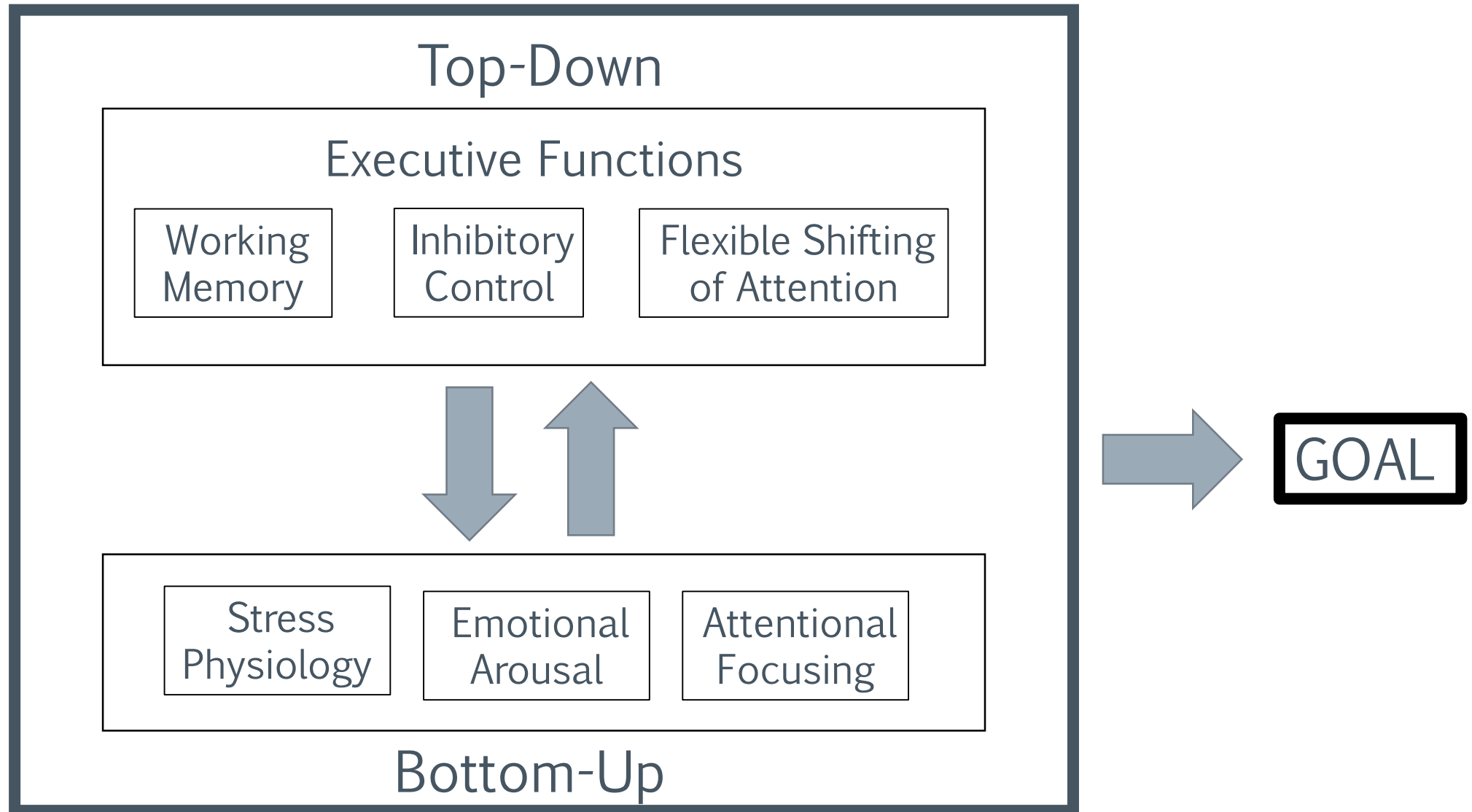
Self-Regulated Learning

- › “Refers to learning that results from students’ self-generated thoughts and behaviors that are systematically oriented toward attainment of their learning goals.”

(Schunk & Zimmerman, 2003, p. 59)

- › Involves goal-directed activities that students initiate, modify, and sustain
- › Students contribute actively to their learning goals rather than being passive recipients of information

Hierarchical Organization of Self-Regulation Domains



Emotional Self-Regulation

- › Emerges out of the interplay between 2 powerful sets of influences
 - Reactivity = or arousability of physiological, emotional, and behavioral systems
 - Control processes = or modulation of reactivity to meet goals
- › Rather than discrete events, these regulatory processes unfold over time, highlighting the dynamic nature of emotional self-regulation

(Cole, 2014)

- › In early childhood, hallmarks of successful emotional self-regulation are evidenced by:
 - Persistence during challenges
 - Frustration tolerance
 - Compliance with, and internalization of, caregiver demands

(Dennis, 2006)

Development of Emotional Self-Regulation: Persistence and the Role of Family

- › Task persistence is a hallmark of children's early self-regulation and forms the foundation for the successful transition to formal schooling.

(Blair & Raver, 2015)

- › Development of persistence is heavily influenced by:
 - Child temperamental factors (Rothbart & Bates, 2006)
 - Contextual factors such as parenting (Dennis, 2006)
- › Must be understood as a dynamic and dyadic/systemic process between a child and his/her caregiver(s)

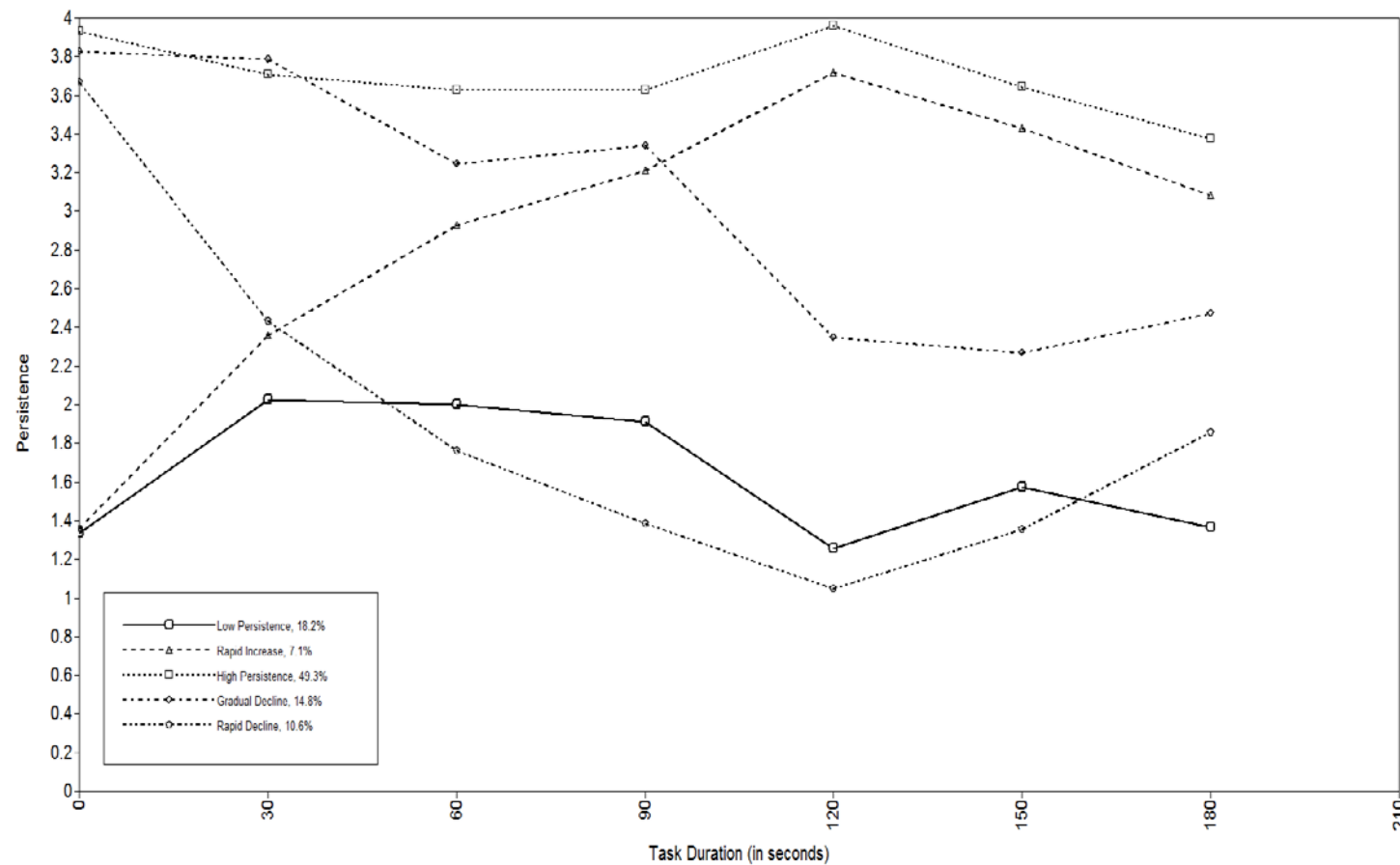
Patterns of Persistence

- › A study of observed task persistence in a non-maltreated preschool-aged sample of 241 parent-child dyads found that:
 - Children in the sample exhibited specific patterns of persistence
 - Individual-level and parent-level factors predicted specific patterns of persistence.

(Lunkenheimer, Panlilio, Olson, & Lobo, in preparation)

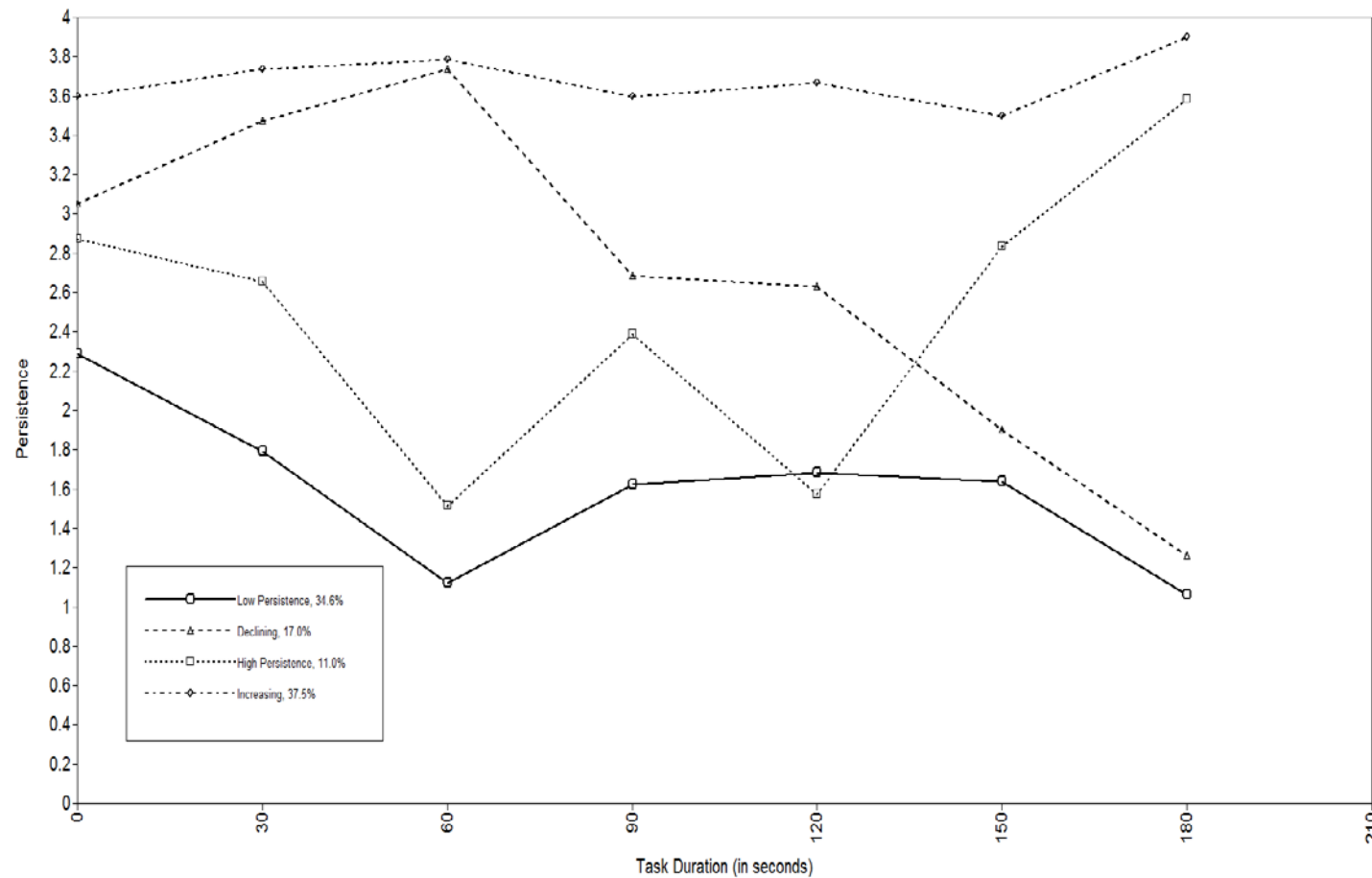
- › Study employed Group-Based Trajectory Modeling
 - Mother-child dyad yielded a 5-class cubic model
 - Father-child dyad yielded a 4-class cubic model
 - Predictors of class membership included:
 - › Child-level: age, IQ, inhibitory/effortful control, reactivity, and negativity
 - › Parent-level: praise, directives during the task, and negativity

Task Persistence Study Results: Mother-Child



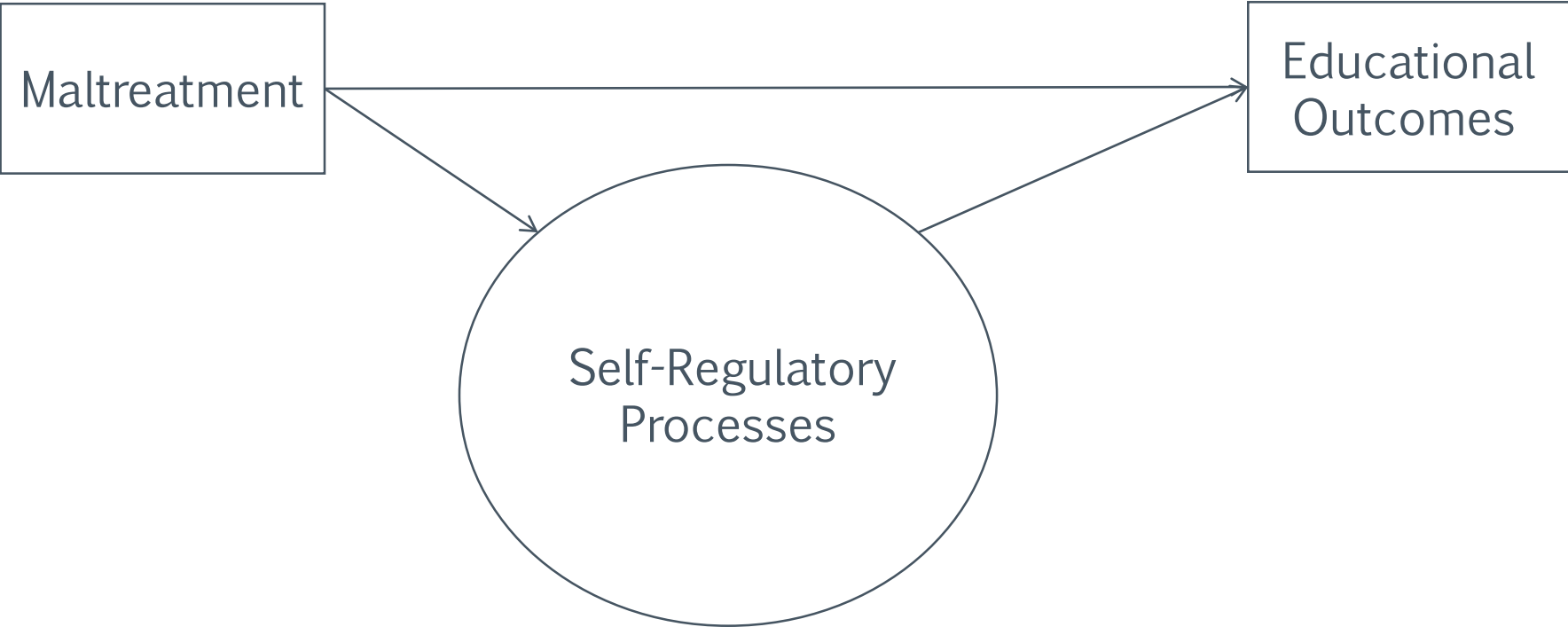
- › Low persistence group displayed higher negative affect, lower maternal praise, and higher maternal directives.
- › Rapid increase group had higher IQ, lower inhibitory control, and higher maternal directives but lower negative affect.
- › Gradual decline group showed higher reactivity
- › Rapid decline group showed higher maternal directives.

Task Persistence Study Results: Father-Child



- › Low persistence group had lower IQ, higher negative child affect, and lower paternal praise
- › Declining group exhibited lower paternal praise
- › Increasing group displayed higher negative child affect

Maltreatment and Self-Regulation



Maltreatment and Emotional Self-Regulation in Infancy and Early Childhood

- › Maltreatment during infancy and early childhood often result in:
 - behavior problems by middle childhood and adolescence
 - placing these children at risk for psychopathology

(Cicchetti, 2007; Cicchetti & Valentino, 2006)

- › Later development of these internalizing and externalizing behavior problems is often mediated by problems with emotion regulation

(Kim & Cicchetti, 2010; Kim-Spoon, Cicchetti, & Rogosch, 2013; Langevin, Hebert, & Cossette, 2014; Robinson, Morris, Heller, Scheeringa, Boris, & Smyke, 2009)

- › For example, young preschool-aged foster children exhibited “committed compliance” but displayed low levels of “internalization” (i.e., deviation), which was related to higher levels of externalizing problems

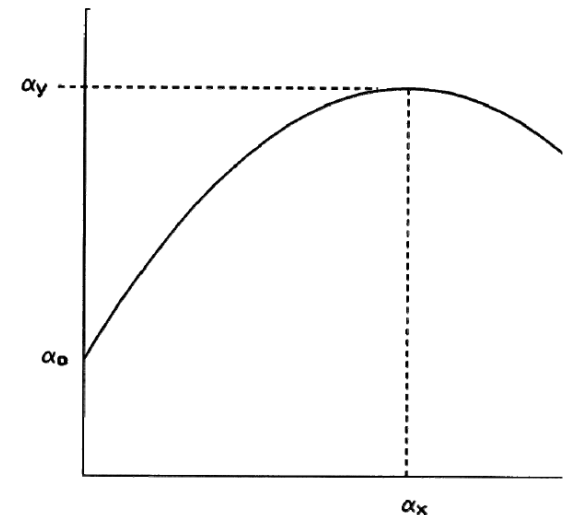
(Jones Harden, Duncan, Morrison, Panlilio, & Clyman, 2015)

Patterns of Emotion Regulation

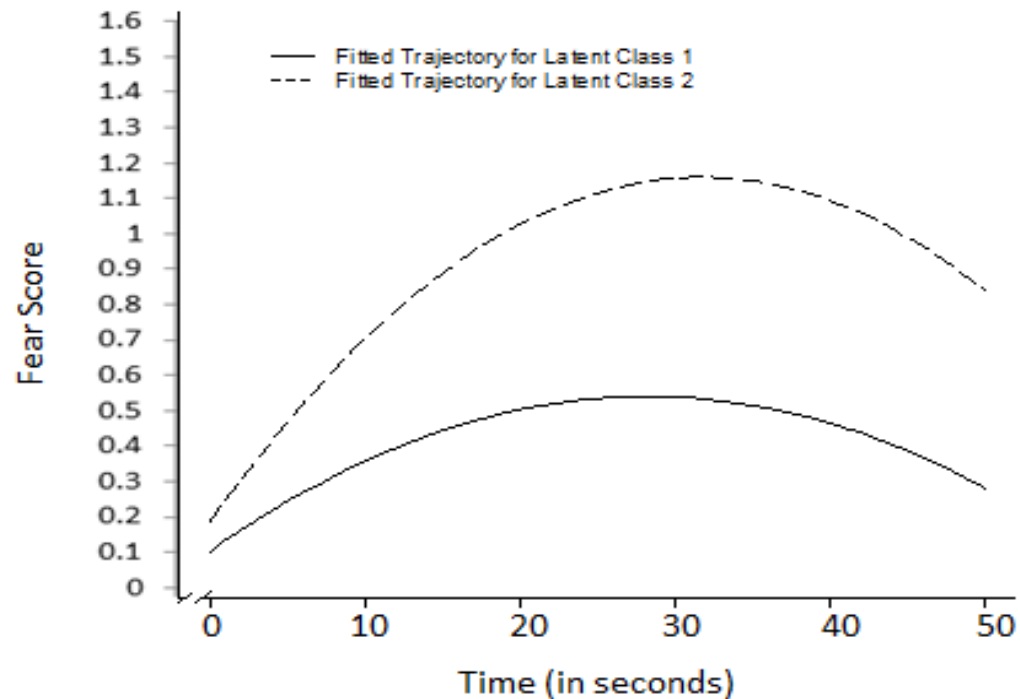
- › A study of observed fear regulation in a preschool-aged foster care sample found that:
 - During a fear-elicitation task, children in the sample exhibited specific trajectory patterns of fear arousal and regulation
 - Gender and language significantly predicted membership in specific trajectory patterns

(Panlilio, Jones Harden, Haring, Morrison, & Duncan, in preparation)

- › Study employed Group-Based Trajectory Modeling
 - Quadratic function as hypothetical functional form of fear expression and regulation
 - Re-parameterized to provide growth parameters that can be interpreted



Fear Regulation Study Results



- › Emotionally dysregulated (i.e., class 2) pattern compared with the emotionally regulated pattern displayed:
 - Higher intensity of fear
 - Higher baseline state
 - Longer elapsed time to reach peak intensity

- › Boys with lower language ability increased the likelihood of belonging to the dysregulated trajectory pattern

Maltreatment, Self-Regulation, and Later Achievement

Emotional Self-Regulation and Later Achievement

› Study aims:

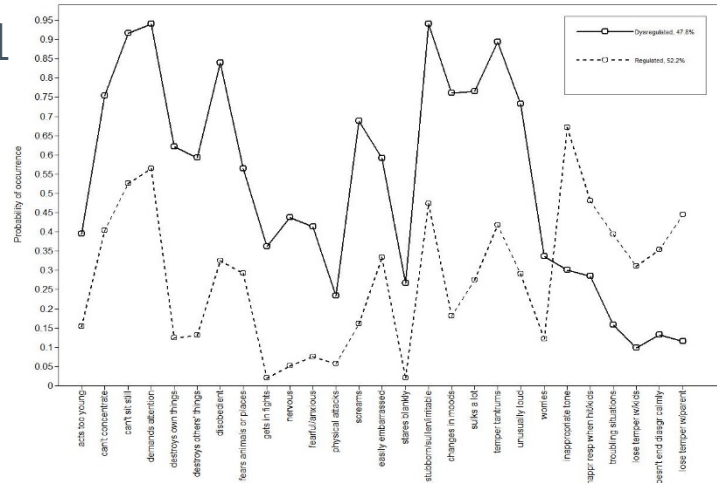
- To examine young maltreated children's emotion regulation development across the preschool and early elementary years
- To examine the extent to which different pathways to higher test scores in school achievement exist among children with a history of maltreatment

› Sample drawn from the National Survey on Child and Adolescent Well-being (NSCAW)

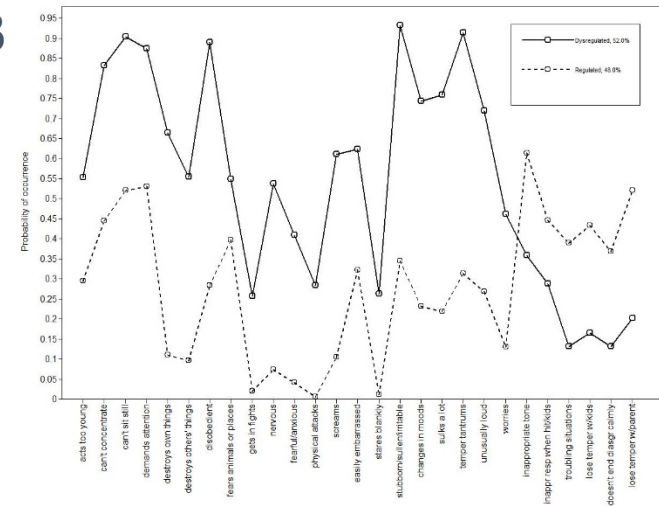
- A nationally representative, longitudinal survey of children and families investigated by Child Protective Services (CPS)
- There were 834 preschool-aged children followed across 4 time points since involvement with CPS

Latent Classification of Children Using Latent Class Analysis

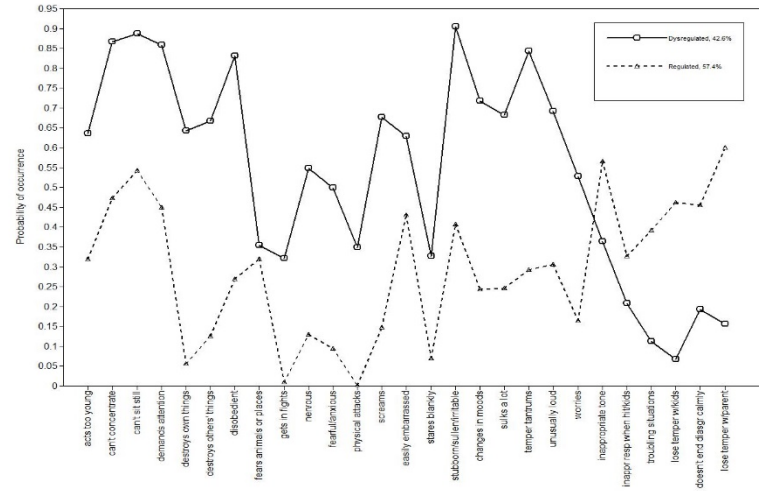
Wave 1



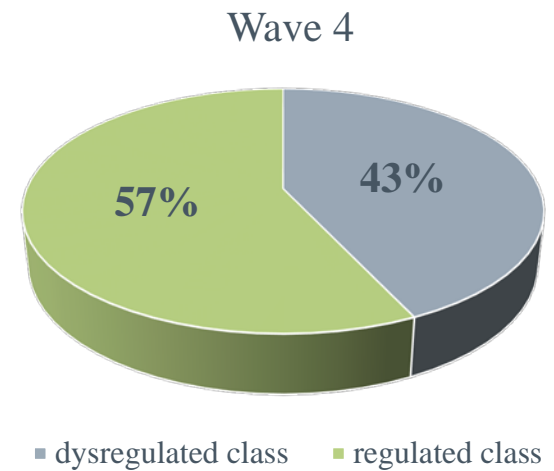
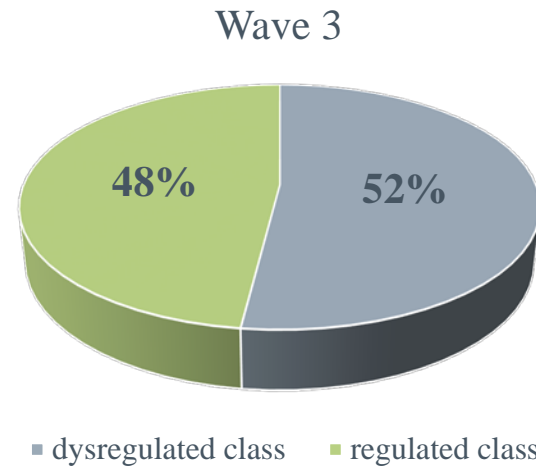
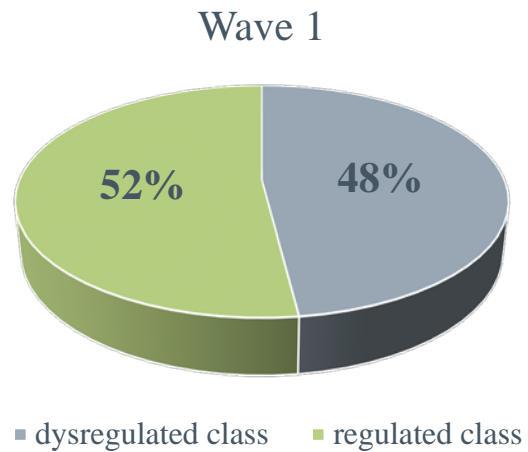
Wave 3



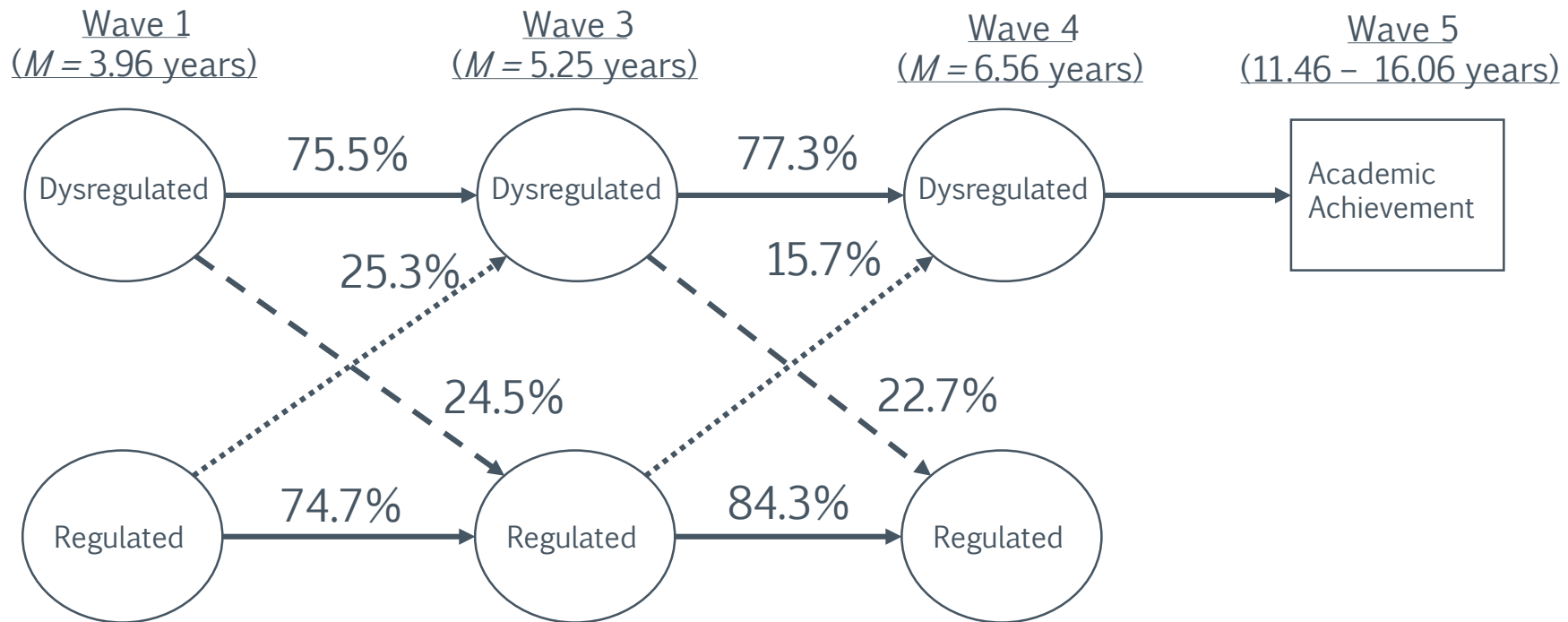
Wave 4



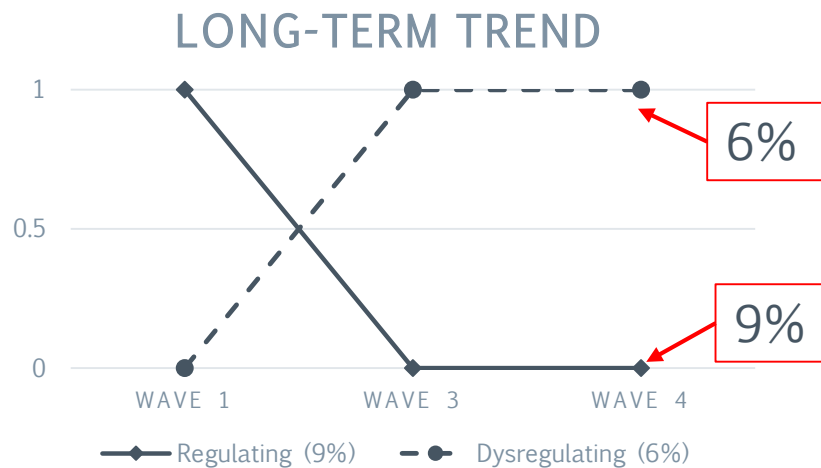
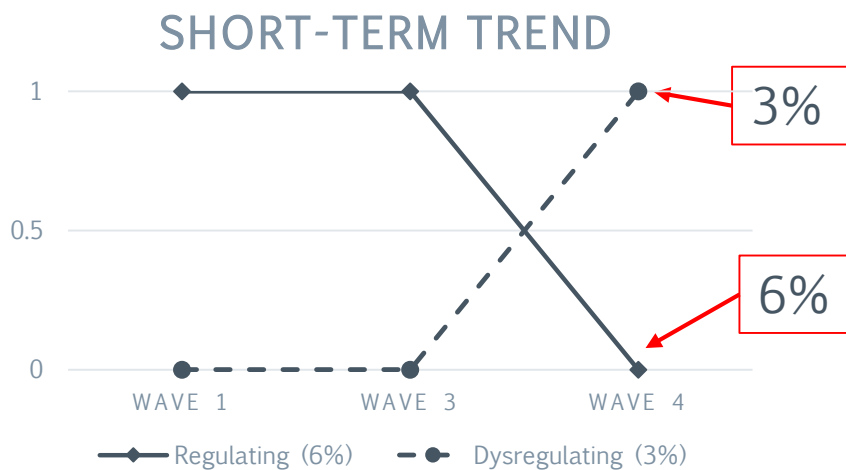
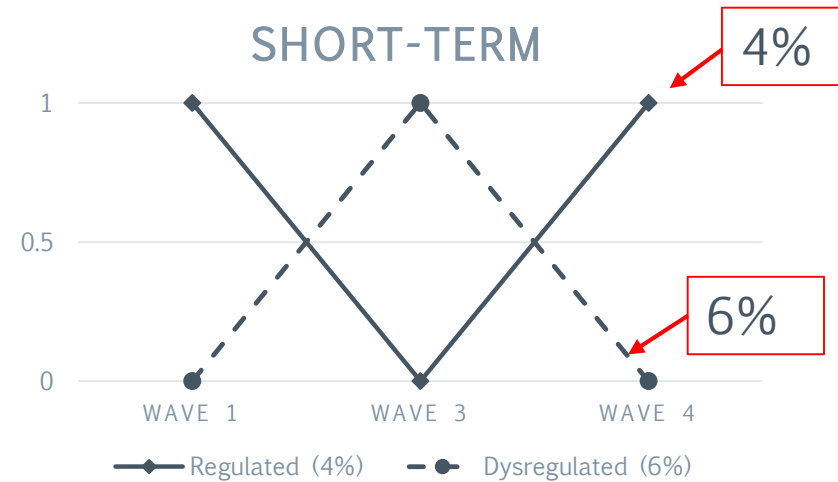
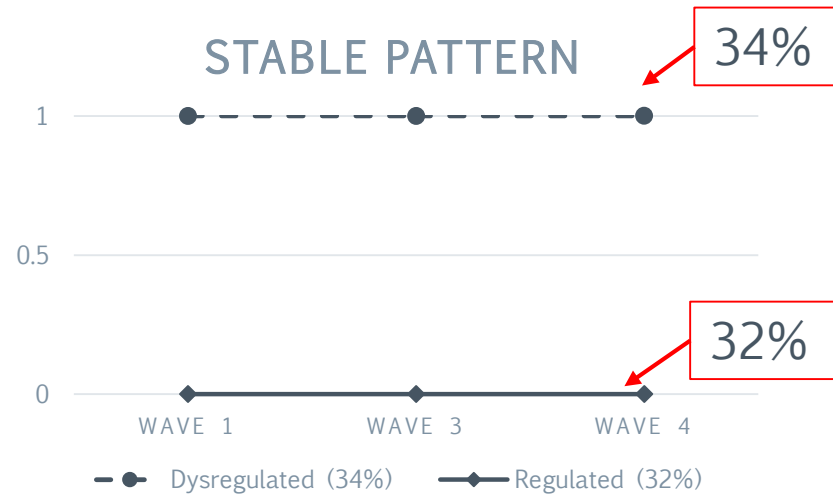
LCA: Latent Class Proportions



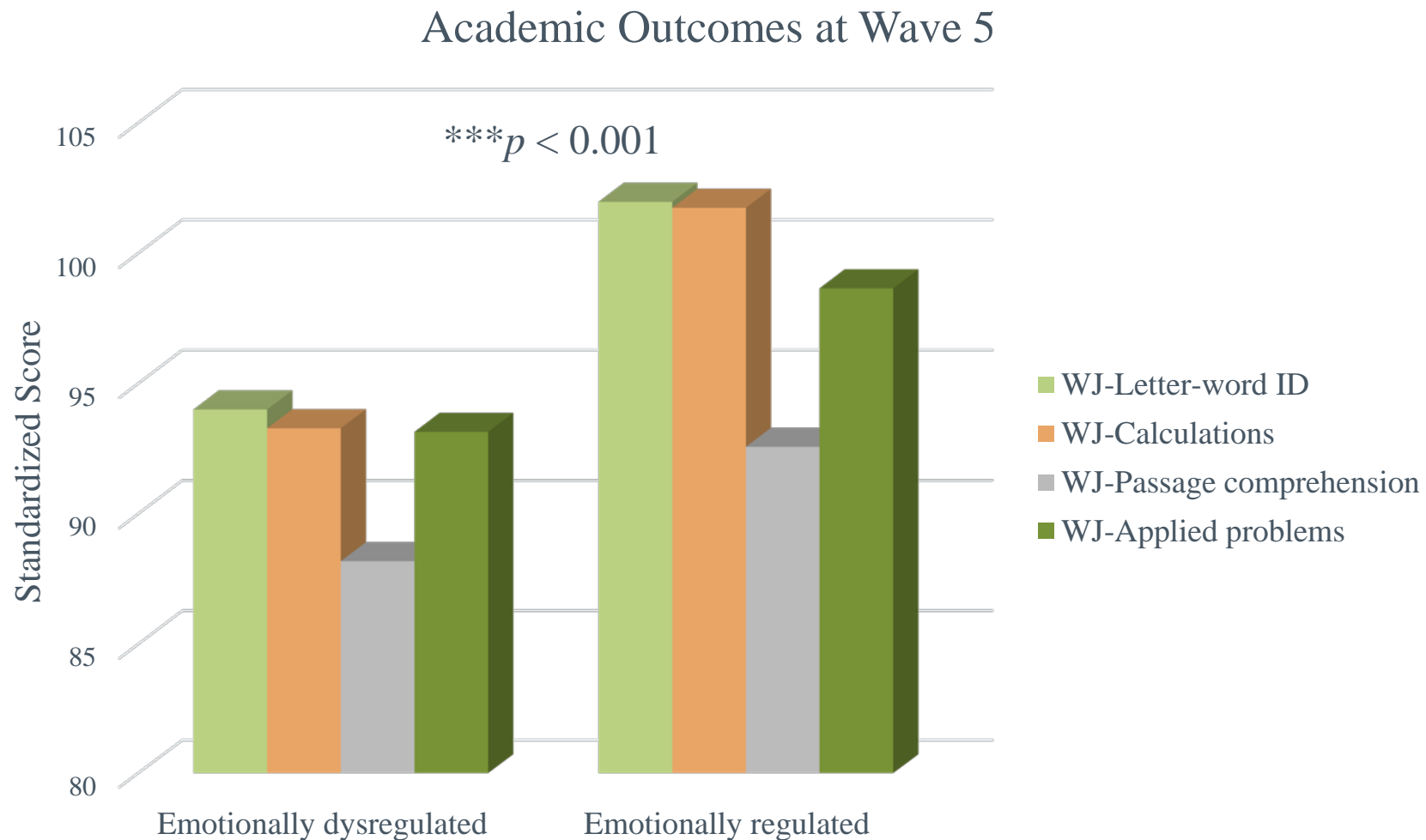
Transition Probabilities and Later Achievement



Developmental Patterns of Emotion Regulation and Later Achievement



Emotion Regulation and Academic Achievement



Implications

Intervention and policy

- › Consider:
 - Core developmental processes
 - The child as integration of complex factors
 - The multiple developmental contexts (e.g., home, school, CPS)
- › Educators and child welfare personnel, along with parents, should work together to help promote positive changes in self-regulation for children with a history of maltreatment

Conclusion

› Self-regulation

- Primary influence on educational achievement
- Impacted by complex trauma
- Salient target for intervention in non-maltreated preschoolers
 - › Head Start REDI Program
 - PATHS curriculum

› Next steps:

- Increased use of evidence-based interventions for children with a history of traumatic experiences
- Incorporate bidirectional model of top-down and bottom-up self-regulatory processes
- Expanding beyond early childhood
- Understand self-regulation in the context of achievement motivation and student engagement
- Inform teaching practices in the classroom

Questions

