



Center on the Developing Child
HARVARD UNIVERSITY

Connecting the Science of Adversity and Resilience to Early Childhood Development and Lifelong Health

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Alyce Spotted Bear and Walter Soboleff Commission on Native Children
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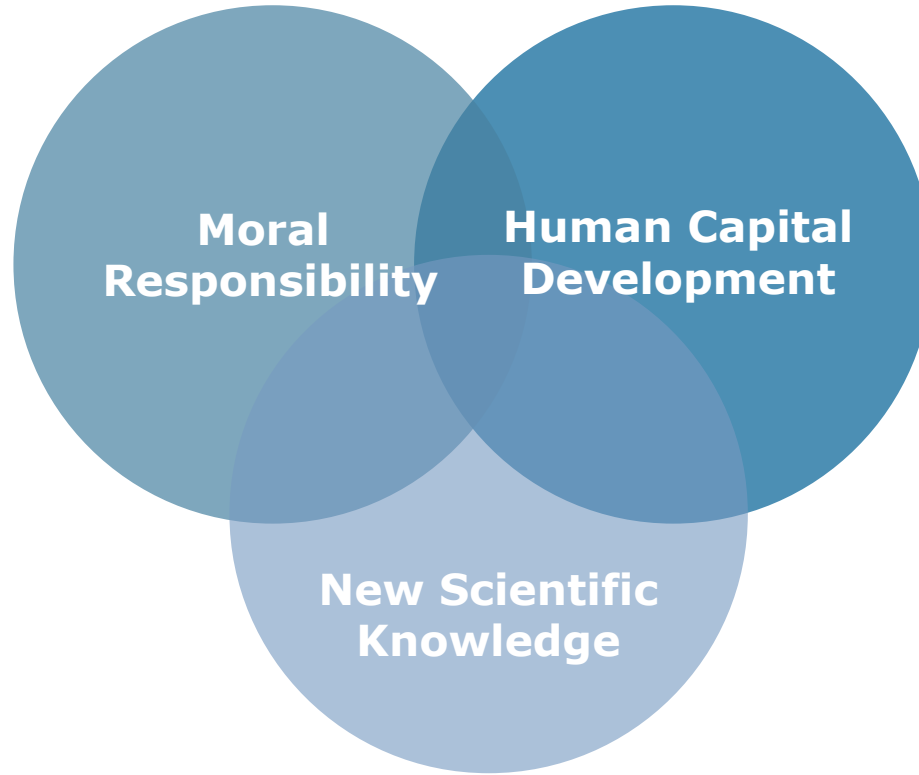


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Three Converging Lenses for Thinking About Adversity in the Prenatal and Early Childhood Periods

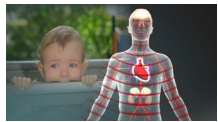


The Biology of Adversity and Resilience Explains How Excessive Stress Can Undermine the Foundations of Health and Development



Genetic Variation

X

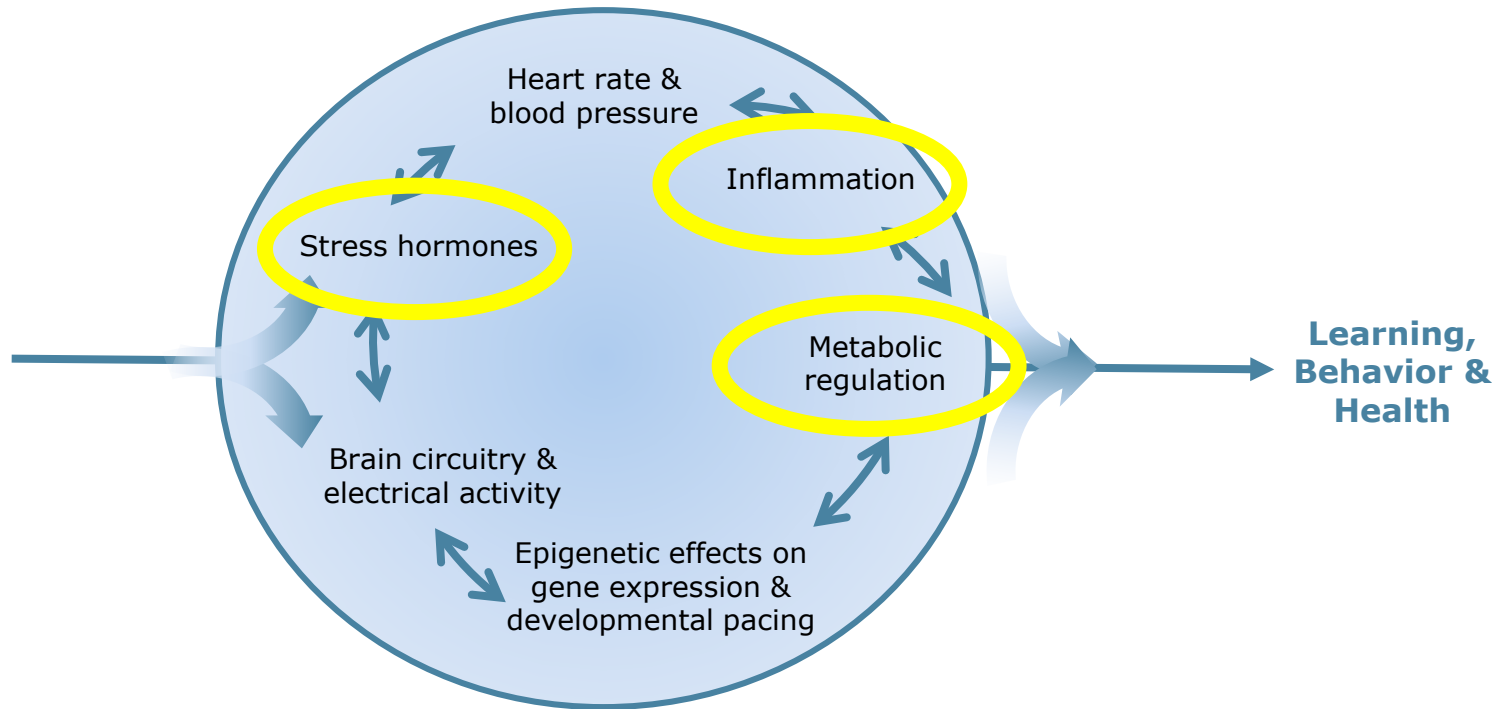


Environmental Stressor

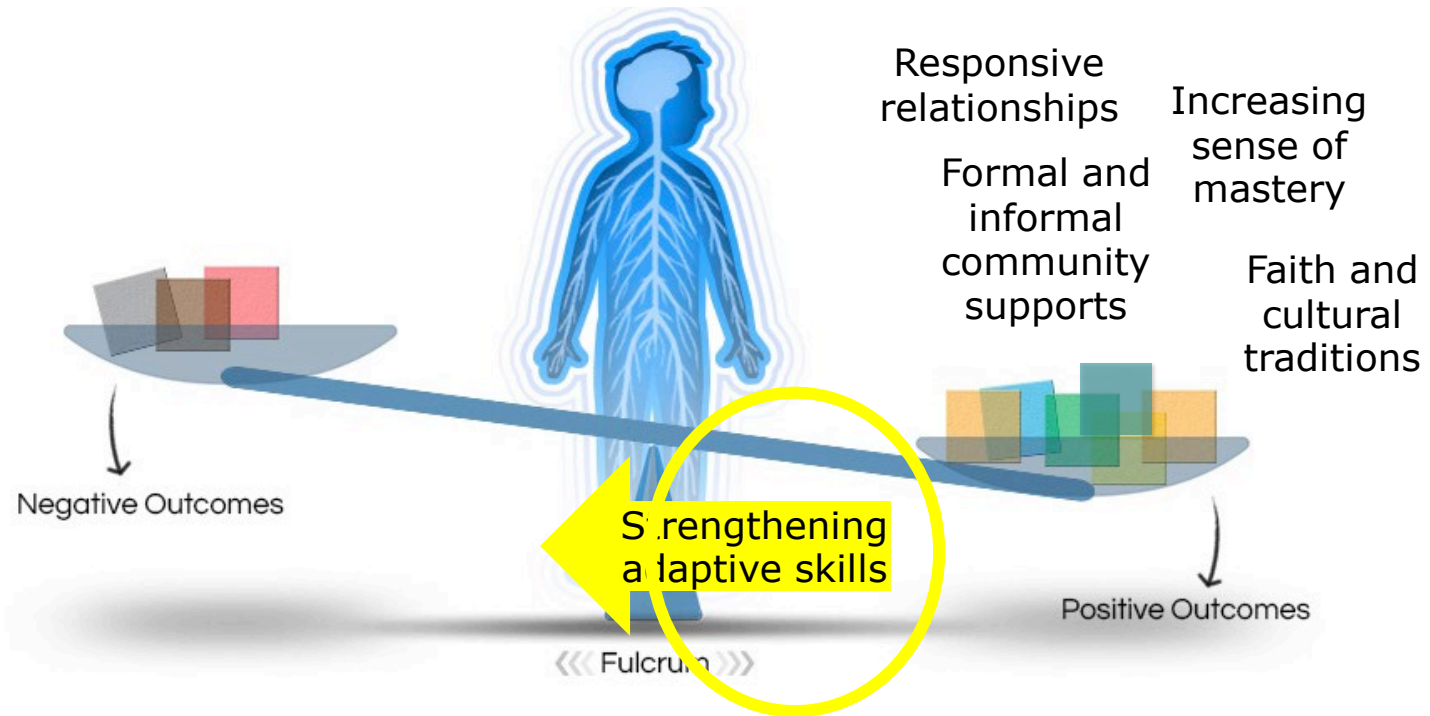
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Time



Resilience in the Face of Adversity Can Be Strengthened by Supportive Relationships and Focused Skill-Building



Understanding the Distinctions Among Three Different Conceptual Frameworks

Toxic stress refers to the physiological disruptions produced by excessive stress system activation. [*A science-based concept that focuses on causal mechanisms that link adversity to later impairment*].

An ACE score is a 10-item rating scale of exposure to child maltreatment and household dysfunction. [*A quantitative measure of a restricted set of risk factors, not a diagnostic tool*].

Trauma-informed care is an approach to treating individuals who have had significant, personal exposure to violence, loss, or other emotionally harmful experiences [*A framework for specialized treatment with an evolving evidence base*].

Need for a New Mindset for Science-Informed Investment in the Prenatal Period and First 2-3 Years After Birth

It's about the developing brain **and** it's also about immune and metabolic systems.

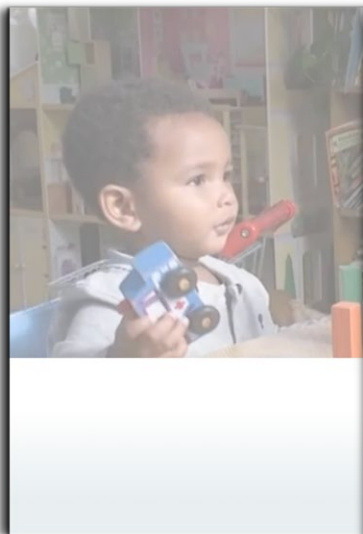
It's about readiness to succeed in school **and** it's also about lifelong health.

It's about the hardships of poverty **and** it's also about the threats and burdens of racism.

It's about nurturing relationships **and** it's also about building a health-promoting society.



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The Brain and Motivation

Experiences Create Different Pathways

Hover over the labels on the brain regions or the highlighted text below to learn more about the role each plays in reward and motivation.

- Experiences trigger neurons (brain cells) in certain regions of the brain to send chemicals to other neurons in different regions.
- Repeated experiences create different pathways in the brain that link those experiences to thoughts, memories, and behaviors.
- These linked pathways create powerful associations between what we do and the memories of how that made us feel physically and emotionally, and that drives our behavior.
- We are motivated to repeat those experiences that made us feel good, and to avoid those that

Dopamine Pathway

IDEAS Impact Framework Training

Reimagining Program Development and Evaluation

What will this training do for me?

Since 2016, the IDEAS Impact Framework Training has helped people in a critical path and knowledge. The training is ideal for anyone involved in the implementation, or evaluation of programs for children and families which how to go beyond the best of what the field has achieved so far. Past participants have learned how to:

- improve the impact of their interventions,
- understand the underlying mechanisms of an intervention by co-creating an evaluation plan with multiple stakeholders,
- identify programs with the greatest potential to impact kids and families facing adversity,
- redesign how they evaluate program effectiveness, and
- orient their businesses around impact and reach.

What does the agenda include?

- Opening Presentation: [Three Principles to Improve Outcomes for Families](#)
This presentation will cover three design principles that we can use to improve policies and programs for children and families.
- An Overview of the [IDEAS Impact Framework](#)
An introduction to the framework designed to help innovators overcome barriers and go beyond the status quo to increase impact.
- IDEAS Impact Framework Case Study: [Theory of Change](#)

NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD

Connecting the Brain to the Rest of the Body: Early Childhood Development and Lifelong Health Are Deeply Intertwined

WORKING PAPER 15

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