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# Center on the Developing Child HARVARD UNIVERSITY

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## Multimedia



## The Foundations of Lifelong Health

A vital and productive society with a prosperous and sustainable future is built on a foundation of healthy child development. Health in the earliest years—beginning with the future mother's well-being before she becomes

pregnant—lays the groundwork for a lifetime of vitality. This video from the [InBrief series](#) provides a concise summary of findings from [The Foundations of Lifelong Health Are Built in Early Childhood](#).

[View video & read more >>](#)

[View all multimedia >>](#)



## Brain Hero

Following a two-year collaboration with the Interactive Media Division of the School of Cinematic Arts at the University of Southern California to develop and test new ways of communicating the science of early childhood development, the Center on the Developing Child has released the collaboration's first product, "Brain Hero." This 3-minute video adapts the visual sensibility of interactive game models to a video format.

[View video & read more >>](#)

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## • Five Numbers to Remember About Early Childhood Development

700 700 PER SECOND

18 18 MONTHS

90-100 90-100%

3:1 3:1 ODDS

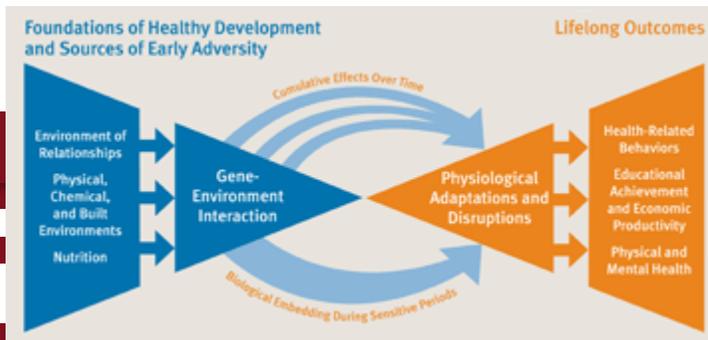
4-9 4-9 DOLLARS

This interactive feature highlights five numbers to remember about the development of young children. Learn how the numbers illustrate such concepts as the importance of early childhood to the learning, behavior, and health of later life and why getting things right the first time is easier and more effective than trying to fix them later.

[View interactive feature >>](#)

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## • How Early Experiences Get Into the Body: A Biodevelopmental Framework



This interactive feature explains how early experiences are biologically embedded in the development of the brain and other organ systems and have lifelong impacts on learning, behavior, and physical and mental health. [View interactive feature >>](#)

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[Events](#)

News &

## Center Director Presents at NBC News' "Education Nation"



On Monday, Sept. 26, [Center Director Jack P. Shonkoff, M.D.](#), presented at NBC News' [Education Nation](#) Summit in New York

City. His talk, "Stimulating Minds and Protecting Brains," was part of a session featuring presentations on the science of early brain development and how that affects learning, behavior, and health for a lifetime. The two-day summit brought together educators, parents, policymakers, elected officials, business leaders, students and others to discuss pressing topics in American education.

[View video of presentation >>](#)

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## Media Coverage



In a recent EdCast, a weekly 15-minute podcast produced by the [Harvard Graduate School of Education](#), Center Director Jack P. Shonkoff makes the case for scientists, practitioners, and policymakers to work together to design and test creative new interventions that mitigate the harmful effects of significant adversity in early childhood. [Listen to the EdCast >>](#) Several international media outlets, including The New Yorker, Time magazine, and Veja, a major publication in Brazil, have also featured the research of Center affiliates in recent months. [View all media coverage >>](#)

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## Follow the Center on Twitter

The Center on the Developing Child is now on Twitter. Follow us at <http://twitter.com/HarvardCenter> for regular updates. You can also receive news and announcements from the Center by subscribing to our mailing list and RSS feed below.



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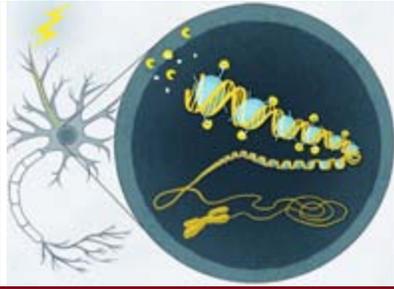
Publications

## • Building the Brain's "Air Traffic Control" System



Being able to focus, hold, and work with information in mind, filter distractions, and switch gears is like having an air traffic control system at a busy airport to manage the arrivals and departures of dozens of planes on multiple runways. In the brain, this air traffic control mechanism is called executive functioning, a group of skills that helps us to focus on multiple streams of information at the same time, and revise plans as necessary. This [Working Paper](#) explains how these lifelong skills develop, what can disrupt their development, and how supporting them pays off in school and life. [Read more & download PDF >>](#) [View all publications >>](#)

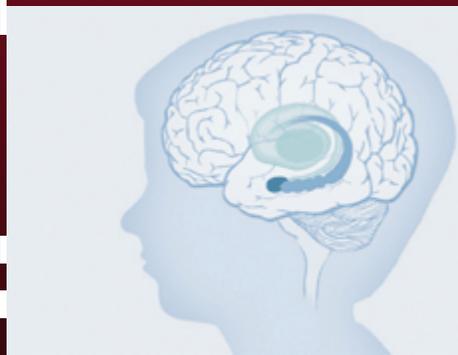
## • Early Experiences Can Alter Gene Expression and Affect Long-Term Development



New scientific research shows that environmental influences can actually affect whether and how genes are expressed. Thus, the old ideas that genes are "set in stone" or that they alone determine development have been disproven. In fact, scientists have discovered that early experiences can determine how genes are turned on and off and even whether some are expressed at all. This [Working Paper](#) summarizes why this growing scientific evidence supports the need for society to re-examine the way it thinks about the circumstances and experiences to which young children are exposed. [Read more & download PDF >>](#)

[View all publications >>](#)

- ## Persistent Fear & Anxiety Can Affect Young Children's Learning and Development



Science shows that early exposure to circumstances that produce persistent fear and chronic anxiety can have lifelong consequences by disrupting the developing architecture of the brain. This [Working Paper](#) summarizes in clear language why, while some of these experiences are one-time events and others may reoccur or persist over time, all of them have the potential to affect how children learn, solve problems, and relate to others. [Read more & download PDF >>](#)

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Opportunities

- ## Student Seminar Series

Student

The Center on the Developing Child Seminar Series is designed to foster interdisciplinary dialogue among students on the science of learning, behavior, and health, and its implications for policy and practice. The seminars will utilize a variety of formats, including discussions, presentations by guest experts, and activities.

The seminars will be held on the first Thursday of the month from October 2011 - April 2012 from 5:30 p.m. - 7:30 p.m. Dinner will be served.

The Center invites graduate and undergraduate students from all schools at Harvard University to apply. **Applications are due by September 30th.**

[Apply to participate in the seminar series >>](#)

[Read more about students, education & leadership development at the Center >>](#)

- ## Julius B. Richmond Fellowships



Three Harvard graduate students have been named recipients of Julius B. Richmond Fellowships from the Center on the Developing Child. The doctoral students will each receive a dissertation grant totaling \$10,000 from the Center to fund independent research during the 2011-12 academic year.

[Read more about the Julius B. Richmond Fellowships >>](#)

[Read more about students, education & leadership development at the Center >>](#)

## General Education Course

In the fall semester 2011, for the second time, the Center will offer a course for Harvard undergraduates. The [General Education](#) course, titled "From Neurons to Nations: The Science of Early Childhood Development and the Foundations of a Successful Society," will introduce students to the biology of human development and explore how an understanding of core developmental concepts can inform beneficial social policies. The course will be taught by Jack P. Shonkoff, Charles A. Nelson III, and Holly Schindler, and will meet on Tuesdays from 1:00 - 3:00PM during the 2011 fall semester. The first class meeting will be on September 6th.

[Read more about this & other courses offered by Center affiliated faculty members >>](#)

[Read more about students, education & leadership development at the Center >>](#)

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Faculty Spotlights

## Faculty Spotlight: Günther Fink



As a health economist, Günther Fink had never focused on early childhood development issues. That was until he was in the midst of studying whether a major, ongoing anti-malaria initiative in Zambia could—beyond the obvious effects on health—benefit the long-term development of the impoverished country. Fink wondered, too, if the campaign could have an effect on child development. It turned out that if he wanted a comprehensive, culturally appropriate measure of child development, he'd have to build a new one—a task easier said than done. [Read more >>](#)

[View all faculty spotlights >>](#)

## Faculty Spotlight: Catherine

## Snow



What does it take to be sure that children develop robust language skills in early childhood and strong literacy skills later on? Exposure to language and literacy are, obviously, crucial, but equally important is the social and motivational context for that exposure, argues Catherine Snow, a Center-affiliated faculty member and the Patricia Albjerg Graham Professor of Education at the Harvard Graduate School of Education. As a result, she suggests that the preparation for preschool and primary teachers needs to broaden its traditional focus on how

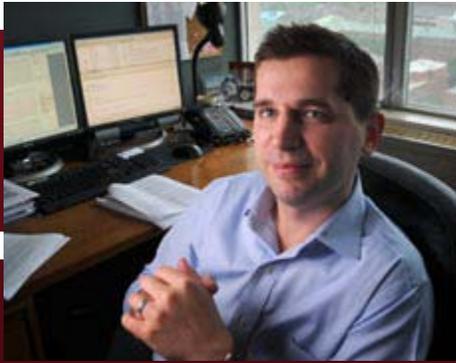
children acquire language and literacy skills to include an understanding of *why*. [Read more >>](#)  
[View all faculty spotlights >>](#)

## • Faculty Spotlight: Hirokazu Yoshikawa



The intersection of research, policy, and practice is where, most of the time, you'll find developmental and community psychologist Hirokazu Yoshikawa. With experience and expertise that ranges widely but revolves around improving the lives of the most vulnerable children and families, Yoshikawa, a professor of education at the Harvard Graduate School of Education and a Center-affiliated faculty member, plays a leading role in several Center-based initiatives. [Read more >>](#)  
[View all faculty spotlights >>](#)

## • Faculty Spotlight: Matthew K. Nock



One of the most vexing problems in attempting to understand and treat suicide-prone adolescents is that one of the times they are most likely to succeed in taking their own lives is immediately after they've been discharged from the hospital. In other words, right after they've assured everyone they're just fine. Learn more about Matthew K. Nock's work to develop more effective ways to predict adolescent suicide—before it's too late. [Read more >>](#)  
[View all faculty spotlights >>](#)

## • Faculty Spotlight: Charles A. Nelson III



Charles A. Nelson studies the brain and behavioral development of young children, focusing in particular on those children for whom early development has somehow gone awry (or is at risk for going awry), either as a consequence of adversity early in life or because of biologically based injury. Learn more about his work studying the effects of institutionalization on Romanian orphans as well as his role in a groundbreaking, linked set of studies researching the mechanisms for how early experience can change the biology of the brain and body for life. [Read more >>](#)  
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SCIENCE OF EARLY CHILDHOOD



A growing body of scientific evidence shows that early influences—whether positive or negative—are critical to the development of children’s brains and their lifelong health. [More >>](#)

- [National Scientific Council on the Developing Child](#)

#### **INNOVATION**



The mission of the Center on the Developing Child is to leverage science to enhance child well-being through innovations in policy and practice. [More >>](#)

- [Early Childhood Innovation Partnership](#)

#### **FOUNDATIONS OF LIFELONG HEALTH**



A vital and productive society with a prosperous and sustainable future is built on a foundation of healthy child development. [More >>](#)

- [Child Mental Health Network](#)

#### **UNDERSTANDING INTERVENTION**



Early childhood program evaluation studies indicate that it is possible to improve outcomes for vulnerable children as well as to generate positive social and economic benefits to society. [More >>](#)

- [National Forum on Early Childhood Policy and Programs](#)

#### **GLOBAL CHILD DEVELOPMENT**



In an explicit effort to build an integrated international approach to child survival, health, and development in the earliest years of life, the Center has launched the Global Children's Initiative as the centerpiece of its global child health and development agenda. [More >>](#)

- [Global Children's Initiative](#)

#### **NEW RESEARCH**



Beyond simply adding incrementally to the existing science base in these areas, the Center is deeply committed to pushing the frontiers of knowledge by facilitating the investigation of bold, new ideas generated by a diversity of disciplinary perspectives.

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