New essay collection challenges 'nature-nurture' debate

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Credit: University of East Anglia

For anyone who has ever wondered whether their child's traits are a product of genes or parenting practices, a major new project could help provide the answer.

'How We Develop', a newly published collection of essays written by leading scientists in their respective fields, seeks to replace the centuries-old 'nature-nurture' dialogue with a new developmental argument: that everything about us, from brain and body structure to traits and preferences, is a product of a dynamic, developing system.

The aim of the collection is to make cutting-edge science on human development available to non-academic audiences. It is published online for free and in an accessible format.

The 24 essays were co-edited by Prof John Spencer of the University of East Anglia's School of Psychology, Prof Mark Blumberg from the DeLTA Center at the University of Iowa, and award-winning science writer David Shenk. They have established a 'go to' site for anyone interested in promoting the well-being of children, from the media and parents, to teachers and policy-makers.

The articles—written by prominent scientists such as Sir Patrick Bateson, Susan Goldin-Meadow, Angela Duckworth, and K Anders Ericsson—present the latest views of what has been termed a 'developmental systems' perspective of research in the field. This provides a framework for thinking about individual development at multiple levels - molecular, neural, and behavioural—and across multiple timescales, from second-to-second behaviour to years of development to centuries of evolutionary change.

Prof Spencer said: "This collection provides an accessible overview of the forces that shape typical and atypical individual development of brains, bodies, and behaviour, spanning molecular and cultural levels, milliseconds and millennia, development and evolution.

"Because of the far-reaching importance of these topics, we have created a collection that is accessible to all readers, whether scientists, journalists, students, parents, teachers or policy-makers, who wish to understand and foster the development of individual children."

Written by an international team of 36 developmental scientists, spanning 25 institutions, the articles cover three themes: brain development; genetics, epigenetics, and behaviour; and behavioural and

cognitive development.

"The tide has turned in science," said Mr Shenk. "The concept of traits being genetically 'innate' is now seen as antiquated and profoundly misleading. But the public still hasn't gotten the full understanding of what scientists have known for years. This is a chance to remedy that."

The essays have been made available by academic publisher Wiley as part of the award-winning WIREs (Wiley Interdisciplinary Reviews) series.

"These essays highlight exciting new findings with scientific, social, and policy implications," said Prof Blumberg. "Our aim is to introduce the reader to the diverse and complementary ways in which a developmental systems perspective enriches our understanding and inspires new directions for answering the biggest questions about how we come to be the way we are."

The collection 'How We Develop - Developmental Systems and the Emergence of Complex Behaviors' is able at: wires.wiley.com/go/howwedevelop .

Provided by University of East Anglia