

Developing brains ^[1]

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Preface:

The language of neuroscience is increasingly being used to support assertions about many aspects of human life. A recent series of studies (Weisberg et al., 2008) found that explanations of human behaviour that included irrelevant neuroscience words, such as 'frontal lobe brain circuitry', were rated by non-experts as significantly more credible than explanations without the extra words. This should alert us to the need to 'look behind the headlines' of popular reporting of neuroscience findings and not to accept at face value arguments that rely on 'latest findings by brain scientists' to make their points.

The effects of early experiences on children's development have been especially subject to 'latest findings' reporting. There is good scientific justification for many of the insights that are being offered; scientists around the world have been using the new tools and methods of developmental neuroscience to great effect, and there are important findings that have been replicated and have great relevance for policies influencing children's lives. But there is also a risk in reporting this research - of overstating what is known and the policy implications. This volume in the Early Childhood in Focus series aims to present an overview of the most significant areas of research, starting in the first section with sufficient basic explanation of the brain and how it functions for the research to be understood by people with little or no previous knowledge of the field.

The second section gives an overview of the developmental processes involved as the child's brain grows and matures in constant interaction with the environment, from conception through to adulthood. For brain development continues through life as experience builds memories and learning, shaping structures and functions of the brain. But the 9 months before birth and the early years of a child's life include especially important and sensitive periods, because the growth and development of the brain's architecture and processes are vastly greater during this time than later.

Enough is now known to be able to say clearly that, for children to reach their full potential, supporting the healthy development of their brains is paramount and the powerful effects of early environments, both physical and social, can no longer be ignored. The third section of this volume focuses on these influences.

It is important to recognise that research into the development of children's brains is still a field of study in its early stages, with many unanswered questions. Thus, for those concerned with making use of knowledge from this field as the rationale for interventions and support for children and families, it would be rash to accept without question strong assertions about essential and very specific ingredients for healthy brain development, especially assertions that seek to justify particular approaches to childcare and education.

We hope that this volume will help you to better understand and critically evaluate reports of new findings from the expanding and increasingly important field of developmental neuroscience.

Region: International ^[3]

Tags: child development ^[4]

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