

Early experience and

JUDY CASHMORE offers other views and other evidence in response to Paul Drielsma's article about the importance of children's early experience in building social capital, published in the last Clearinghouse Newsletter.

In the last Clearinghouse Newsletter (vol 8, no. 2, pp. 6-11), Paul Drielsma's article "Hard wiring young brains for intimacy" drew heavily on Bruce Perry's work to establish a case for the importance of children's early experience and brain development in building social capital. His argument can be summarised in the following quote from p. 7 of his article:

"The implication of the development of an infant's capacity to connect and relate is that the creation of social capital is largely dependent on early healthy childhood experiences. . . . We cannot hope to build strong sustainable families and communities without the members of the community having this critical experience-mediated capacity for social affiliation and connection."

Perry's work has been very helpful in getting the message about the need to invest in early brain development on to the public agenda and in encouraging funding for early intervention projects. There are, however, several concerns about the material promulgated by Perry and by Drielsma, and the possibilities for under-estimating the complexities and for unfortunate or unintended consequences. There are other views and other evidence about early experience and brain development that need to be considered.

"Zero to Three" – too late and too early

The first concern is that, in the words of Deborah Phillips (2000), the focus on the "zero to three" age group "starts too late and ends too early". Phillips is the co-editor with Shonkoff of the recent reputable report, *From Neurons to Neighborhoods: The Science of Early Childhood Development*. "Zero" is too late because it ignores the prenatal environment and the well-established and increasing empirical evidence about the effects of the pre-natal environment on children's development, including their brain development. "Three" suggests that the die is cast at a very early age, ignoring the evidence of continuing brain plasticity well beyond the age of three, and even into adulthood, especially for some of the more complex functions. The danger of an unbalanced emphasis on the first three years is that it implies that there is little point in intervening after this time.



In Drielsma's terms, this is because there are critical periods or "windows of opportunity" which, if missed, mean that it will not be possible to "meet the genetic potential of that system" (Drielsma, p. 8). There are, however, alternative views on what is meant by "early", and new and different conceptions of "critical periods" and the plasticity of brain functioning. For example, "early" may mean either "early in life" or "early in the pathway". Both are important and have their place depending on the issue or problem. Different "problems" are likely to require different strategies and different timing.

A focus on intervening *early in the pathway* and at particular transition points arises from concern about the cumulative effect of various life events and risk and protective factors on later development. The key here is to interrupt the chain of negative events and to divert the child from a pathway leading to an adverse outcome to a more positive one.

The emphasis on intervening *early in life* is based on concerns about the impact of early experience on brain development and what Keating and Hertzman (1999) have referred to as the "biologically embedding" of behaviour and developmental health. This presumes that there are "critical" and "sensitive" periods in early development, during which particular experiences are crucial and have an impact on later development "*independent of intervening experience*" (Keating and Hertzman 1999: 7).

brain development



The example Drielsma cites of children who never develop normal vision if they have had cataracts during the early months of life represents one type of “critical period” or developmental process – what Greenough and Black (1992) call “experience-expectant” synaptogenesis. In this process, brain growth, including the growth of synaptic connections, relies on particular forms of environmental exposure or species specific experience. In the cataract example, the visual cortex “expects” and “needs” exposure to light and patterned visual information to develop normal visual functioning.

Greenough and Black (1992) contrast this with “experience-dependent developmental processes or synaptogenesis in which idiosyncratic experiences throughout life help to trigger brain growth and refine existing brain structures” (Shonkoff et al. 2000: 54). The other example Drielsma cites to support the

argument for early experience concerns the subtle changes in brain functioning of people who have become stringed instrument musicians. This is an example of “experience-dependent” development but does not rely on the experience occurring before the age of three, as Drielsma’s quote implies.

Drielsma then generalises from these examples to other areas of development, saying: “This observation about learning and development applies to behavioural, mental and physical long-term health outcomes as well” (p. 8). But there is as yet little evidence from studies of human behavior, learning and development (as opposed to animals studies) to support this claim. There is, however, evidence that these other areas of development show more plasticity and are open to influence from new experience and learning across childhood and even into adulthood. To quote Shonkoff et al. (2000: 216):

PAUL DRIELSMAS *response* TO JUDY CASHMORE

I welcome Judy Cashmore’s comments. They provide “rounding” and balance to my article, which may have seemed overly enthusiastic at times. My comments were based on a reflection of Bruce Perry’s work, with direct reference to his 1998 ISPCAN lectures, that sparked in me a new awareness of the importance of the early years. It is gratifying to have this whole area further highlighted and discussed through the Clearinghouse Newsletter.

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“For the vast majority of brain development, including areas of the brain involved in cognitive, emotional, and social development, either questions regarding critical or sensitive periods have not been explored or it appears that the brain remains open to experiences across broad swaths of development. This makes sense. Adaptation depends on the rapid consolidation of capabilities essential to survival and the life-long flexibility to adjust to changing circumstances and learn new skills. As a result, assertions that the die has been cast by the time the child enters school are not supported by neuroscience evidence and can create unwarranted pessimism about the potential efficacy of interventions that are initiated after the preschool years.”

Premature statements about the negative effects of some early experiences

A second and related concern is the premature nature of some of the statements about the impact of stress on brain development and the effect it has on restricting an individual’s “sphere of concern”. While there is certainly abundant evidence of the poor developmental outcomes for children subjected to abuse and neglect, and there is also emerging evidence suggesting that the chronic activation of stress mechanisms may have deleterious effects on brain development, there are few peer-reviewed studies involving humans in this area, and Perry’s web-site reference is not among them.

The one peer-reviewed study by DeBellis et al. (1999), cited by Shonkoff et al. (2000: 256-257), did indicate significant differences in brain volume and inter-connections between the left and right brain for children exposed to chronic physical and sexual abuse compared with children matched for age and sex. The effects were correlated with duration of the abuse, but not with the age of onset. As Shonkoff et al. (2000) point out, “there is no reason to interpret these results as indicating permanent impairment”, particularly in the light of studies

showing the recovery of abused and neglected children who are then well cared for. It is not helpful for such children to be treated as if they will be permanently impaired and such beliefs can have unfortunate policy consequences if they are adopted uncritically.

Parent–child relationships as the sole basis for social capital development?

Third, the main argument proposed by Drielsma is that social capital formation is based on an individual’s “sphere of concern”, which is turn a function of the security of children’s early attachments. Drielsma (p. 9) states, for example, that:

“The ‘sphere of concern’ which makes us feel connected to and responsible for other people is related to attachment, which is related to reward. There is a relationship between the reward part of our brain and the attachment part of our brain.”

The discussion that follows in Drielsma’s article focuses on the reward system for both mother and infant in the mother–infant relationship and the neuro-biological underpinning of the reward and the attachment parts of our brain.

It is certainly well accepted now that attachments with the primary care-givers set the stage for children’s relationships with others, and there is some preliminary evidence about the role of responsive caregivers in buffering physiological stress reactions. But it is by no means certain “how secure attachments function to promote and protect early development” (Shonkoff et al. 2000: 237). It is certain, however, to be much more complex than the picture provided by Perry about the link between the “reward and attachment parts of our brains”.

However, there are several conceptual issues in this argument that go beyond the adequacy of the scientific evidence, and they concern the underlying model. Although Drielsma starts with Putnam’s ideas about social capital and later refers to Bronfenbrenner’s ecological model, the implication of his

Introducing *kIDs.ap*

Protecting children on the Internet

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Since the modern discovery of child physical abuse in the 1960s, knowledge of the nature and types of child abuse and neglect that may be experienced by children and young people has continued to grow. In the field of child sexual abuse, the development of the internet has led to the rapid development of a strong paedophile and child pornography cyberspace presence. For many, paedophile behaviour on the Internet represents the most recent (and a quite virulent) form of child sexual abuse/exploitation that must be combated and prevented.

As a result, efforts have begun to focus on creating a safe environment for children who surf this new virtual world, and ensuring the right of children to protection from harmful and illegal material.

Developed under the auspices of UNESCO, The World Citizens’ Movement to Protect Innocence in Danger (IID), an Australia-based non-profit organisation, *kIDs.ap*, was formed in March 2000

to provide information to the Asia-Pacific region to help to eradicate child pornography and the activities of child molesters or paedophiles on the Internet.

Following the aims of Innocence in Danger – “to support endeavours to protect children online, to sensitise world opinion and to mobilise resources” (Koichiro Matsuura, Director-General of UNESCO) – *kIDs.ap* has mobilised regional support for an online presence designed to provide information to parents, children, professionals, volunteer workers, academics and others who accept responsibility to protect and empower children against sexual exploitation via the Internet (online services). It aims to prevent the sexual exploitation of children via online services in the Asia-Pacific region by providing a website that highlights this problem through the provision of timely information of general and academic value.

Stage One of the development of *kIDs.ap* Internet resources was the successful launch of the *kIDs.ap* website in March 2001. The site provides: a guide to safe surfing and safety tips; material

use of the mother–infant relationship as the building block of social capital is that we need work only on this level. Bronfenbrenner’s model, however, involves complex transactions within and between the individual, family, community and social levels. There is also much more involved in the formation of social capital described by Putnam than a reliance on the parent-child relationship. A great deal in social capital formation depends on what the community provides or makes possible.

Further, the approach outlined by Drielsma suggests that the influence is all in one direction, that it is simply a matter of the environment providing the child with the experiences required for children to meet their full genetic potential. While the way they are cared for by adults and others, especially in their early years, can have a significant impact on the way children develop and learn to regulate their behaviour, children with different temperaments and abilities present different challenges to caregivers. There is now considerable evidence that children have a marked effect in creating and affecting their own environment, with temperamental and other characteristics affecting the way parents, peers, and other adults relate to them. It is a complex transactional process.

More importantly, the implication that the parent–child relationship provides an overall “fix”, including the base for social capital formation, has further unfortunate policy consequences. This applies both when we ask how generational cycles of abuse and neglect can be broken, and when we ask broader questions about how the social capital of families and communities can be promoted.

Summary

In summary, none of these criticisms of Perry’s and Drielsma’s account are meant to deny the value of early intervention or the crucial importance of warm and responsive care-giving for children. There is certainly no reason for complacency about the significance of early experience for children’s development,

and it is important that we do invest in promoting and providing optimal care for young children. It is important, however, not to foreclose prematurely on single solutions.

No one denies the importance of the two goals: breaking generational cycles of abuse and neglect and the promotion of social capital at the family and community level. It is important, however, to consider more than one point of view, not to accept any uncritically, and to be careful to consider the data it is based on, and the likely policy implications.

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describing the dynamics of paedophile activity and the use of child pornography; and a description of the activities of paedophiles online. It also contains an online survey that enables visitors to anonymously provide information about their use of safe surfing tips, experiences of online child exploitation/pornography, and their views on the site and its future development.

A key component of the Stage One website is a confidential email system that enables parents, children and other users to access professional advice from a large number of professionals located in countries across Asia-Pacific. kIDs.ap is continuing to actively recruit professionals from across the region to join the expert panel of supporters who provide specialist email advice. Interested professionals are encouraged to contact the Executive for further information.

In Stage Two, further development of the website will include the creation of an email forum for kIDs.ap members to facilitate information sharing and networking, to produce a comprehensive list of the services available in member countries for families, and to provide access to current research material.

The Executive of kIDs.ap are all professionals working full-time in the areas of victims/offender counselling, child protection advocacy,

and law enforcement. For logistical reasons they are all based in Victoria, Australia; however, the aim is to include executive members from other countries in the region over time. kIDs.ap members, contributors and supporters are child protection professionals and concerned citizens resident in the Asia/Pacific region.

What has been achieved to date, has been done without corporate sponsorship and would not have been possible without the generous support of ECPAT Australia, kIDs.ap’s sponsoring non-government agency, Echo Beach TNW who designed the website, Dr Chris Yates (IT specialist), and Ms Alice MacDougall (Freehill, Hollingdale and Page, Solicitors). kIDs.ap is currently seeking corporate sponsorship to fund the organisation.

- Further information is available from the Executive, which can be contacted at: kIDs.ap, PO Box 451, South Melbourne, Victoria 3205. Email: kidsap@kidsap.org Internet: www.kidsap.org/
- For confidential advice on safe surfing, or concerns about online activities, email: kidsap@kidsap.org

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