

Is the new cognitive neuroscience of social inequality equal? Deconstructing the current neurocognitive research on children's attention

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"Kids from lower socioeconomic levels show brain physiology patterns similar to someone who Actually had damage in the frontal lobe as an adult..."
(US Berkeley News, 2008).

The relationship between socioeconomic status (SES) and various outcomes, such as cognitive ability, behaviour, social skills and health, has been studied for over half a century. The general consensus in interpreting the results has been that low SES is necessarily associated with both cognitive/behavioural pathologies or deficits (see quote above).

Contrary to this *deficit attribution* new evidence suggests that the differences between low and high SES populations may be due to cognitive preferences associated with the social context where children develop (D'Angiulli et al., 2008a, 2008b).

Such evidence generally showing that despite differences between low- and high-SES children in neural correlates, there are no behavioural differences.

Still, from within the new cognitive neuroscience of social inequality the observed neural differences are used to argue that low-SES children have neurocognitive impairments ("...even when performance differences do not emerge between lower and higher SES individuals, there are differences in the degree to which specific neural systems are recruited..." Hackman & Farah, 2009, p.67) and this by default needs intervention/remediation "...to protect and foster the neurocognitive development of low SES children..." (Hackman & Farah, 2009, p. 71).

Although recent research shows that high-SES children experience socioemotional issues related to atypical development (Luthar and Latendresse, 2005) they are not by default seen as eligible for intervention. Why? We argue: any other group (but low SES) is seen as "Normative".

Other research shows that low SES is associated with elevated levels of stress, and that elevated levels of stress or treatments with stress-related neuropeptides can alter certain aspects of attention.

Variations in attention across different SES backgrounds may be mediated by environmental conditions in which the inattentive profile attributed to low SES children may be adaptive (Jensen et al., 1997) at least until the experience of repeated daily stress is perceived as uncontrollable (Heuther 1996).

In conclusion, the *deficit account* is value-grounded, the alternative is a framework grounded in both ecological and developmental theorizing that takes social norms and context seriously.

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