instructional modalities that can help a struggling child to “get it” and move forward at the rate their potential might predict. For neuropsychology practitioners, this again emphasizes our need (and frequent failure) to look at what is right about a child, in addition to what is wrong.

As a whole, I found Mody and Silliman’s book to be a thoughtful presentation of the multitude of issues on which we, as practicing neuropsychologists, must focus. I was humbled by the complexity of the issues and how easily my day-to-day practice may gloss over important considerations as I go about the clinical application of my current knowledge regarding reading and language development. At the same time, I was disappointed that a greater emphasis was not given to the role of subcortical factors as they affect language and reading. Given that we are increasingly aware of the role of frontostriatal pathways and cerebellar functions as they impact neuropsychological functioning, I was hoping that the book would have had a chapter that provided at least an introductory integration of cortical and subcortical contributors to language and reading disorders.

In sum, Mody and Silliman’s book is a worthwhile addition to the bookshelf, but perhaps best digested in small bites.

Christopher J. Nicholls
Private Practice
Scottsdale, AZ
USA
E-mail address: cjnicholls@msn.com

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The theme of Poverty and Brain Development During Childhood can be simply stated: poverty, as a shockingly prevalent social condition, can be conceptualized and studied as a kind of pathogen: an agent of neurological disease with measurable and, perhaps, specific consequences on the neural basis of cognition, emotion, and self-regulation of millions of children around the world. Though the authors’ eyes are on the political and social policy implications of what is a newly maturing, but truly transdisciplinary field of study, the data that are summarized in this book will be useful to the practice of clinical neuropsychologists and will spawn many new questions for researchers in the neurosciences and what will likely be a new set of collaborators in the social sciences.

The six chapters in this book covering the definition, and epidemiology of poverty, reviewing studies that use poverty as a correlate of a variety of cognitive and neuropsychological variables, and examining interventions and public policy seem to be organized in three sections that take the reader from social science to neuroscience and back. Though these three stops are a necessary part of the journey, I suspect that many readers accustomed to reading the neuropsychology literature will find the endpoints sometimes frustrating, particularly when the authors are laying out the debate on how best to measure poverty, struggling to find the most appropriate way of interfacing what seem to be macroeconomic and culturally determined phenomena with individual neurobiological systems. The opening chapter on the conceptualization and measurement of poverty seems at times disorganized, though the issues and methodological struggles with defining poverty presented to social scientists and policy-makers are in the end interesting, and the data regarding the actual scope of poverty in most of the livable landmass are difficult to comprehend from what turns out to be the relatively small percentage of the world enjoying the relative prosperity of the West. Rather than starting out with the “limits” of various approaches to defining poverty, the reader would have been helped by a statement of criteria or goals of poverty measures that could be used for study of cognitive and neural development. I think knowing where this chapter was going would have made the importance of the various limits and problems seem more focused and clear.

After a brief review of how various environmental factors influence neural development, the book gets to the actual data relating income, as well as the various privations that may be associated with income, to measures of intellectual and brain development. The presentations in these chapters are clear and often compelling. What will be most revelatory to many
Clinicians is not that there is a relationship between poverty and various measures of health, intellectual functions, and development, but that there are so many different poverty-related mechanisms that reinforce these relationships. These data also suggest that there are potentially different causal pathways between different aspects of poverty and their psychological consequences; for example, the development of reading abilities is related to a different set of home environment factors, than is the development of behavioral disorders. The data also seem to support the idea that the effects of poverty are cumulative and interactive: the longer the exposure, the larger the impact. These details are certainly relevant to formulating interventions when dealing with a pediatric population and are likely to also be relevant to making deductions about the additional impact of other neurological diseases.

Clinicians will also find the review of how different cognitive systems (e.g., language, memory, and cognitive control), sometimes at a surprisingly basic level (e.g., phonological discrimination), are affected by poverty. It is probably not surprising that the largest associations are with language development, but the additional fact that poverty seems to amplify the effects of individual differences will prove important in the structuring of interventions recommended by individual clinicians and educators.

Some of the most interesting data—and what will probably prove to be the most controversial data—come from several functional neuroimaging studies looking at differences in activation maps of language and other abilities as a function of poverty. The studies appear to show that poverty as a variable makes a difference in the neural networks used to perform some tasks. The debate will be as to the direction of causality between the observations of reduced activation and reduced performance. That is, is activation reduced because the child does not do the task as well or does the child not do the task as well because the neural structures upon which they are dependent are in and of themselves impaired? Though many of the studies reviewed do not confront this issue, they lead to future work that will answer such questions, and thus further guide clinicians to target interventions appropriately.

In the concluding chapters, the authors review what appear to be promising methods for addressing some of the cognitive effects of poverty by focusing on the training of basic cognitive skills, in some cases using fMRI and other neuroscience-derived techniques to assess efficacy. This review may be helpful to clinicians and educators as a source of ideas to guide clinical interventions and will undoubtedly inspire many investigators who would not have thought about the applicability of basic cognitive neuroscience to real-world problems.

Depending on one’s political perspective, I can imagine very different reactions to this data in terms of how it should impact social policy. There will be some who regard as controversial and politically charged the authors’ fairly modest plea for policy-makers to at least be aware of this emerging science that combines sociology, economics, anthropology, and cognitive neuroscience to determine how the distribution of income and access to resources impacts the central nervous system. There will be others, however, who will see this a clear blueprint to determine social policy and even political platforms. I think that whatever one’s political perspective, the data presented in this book will be of interest to most practitioners of contemporary clinical neuropsychology.

Nancy Hebben
Harvard Medical School
Boston, MA
USA

McLean Hospital
Belmont, MA
USA

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