

Book Review

Matto, H., Strolin-Goltzman, J., & Ballan, M. (Eds.). (2013). *Neuroscience for Social Work: Current research and practice*. New York: Springer.

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As social workers, we continually use hierarchical and exploratory heuristics in our quest to evaluate and intervene in the human condition. As practitioners, we regularly apply the concepts of micro, mezzo, and macro system analysis along with other schemas such as Maslow's Hierarchy of Needs to assess our clients and client systems. Our quest is to accurately evaluate those who seek our services so that we can help the client system move forward toward a more healthful and robust existence. Our social work skill sets and nomenclature are rife with terminology and guides driven from every aspect of human nature. Primary among those guides is the "Biopsychosocial Model," which social work has used since the 1950s. Ethically, it is extremely important that we adhere to evidence-based practice, which includes keeping current on the latest research with which to help our clients.

The 21st century has seen incredible discoveries in understanding environmental impacts on the brain, which ultimately affects human behavior. This understanding has altered social work's Biopsychosocial Model to include a neurobiological perspective. To ignore these discoveries and the ability to literally look inside the brain for clues to the environmental impact on human behavior would be to shortchange our clients. For social workers to remain true to ethically driven evidence-based practice, we must continually search out cutting-edge assessment, prevention, intervention, and research protocols.

Matto, Strolin-Goltzmann, and Ballan have skillfully assembled a unique cadre of authors from a vast variety of social work fields to look into the issues associated with neurobiology and human behavior from many aspects of life span development.

From this text's Foreword to the last chapter "Adult Criminal Justice System," written by Elizabeth D. Hutchison, I found this book to be a superb academic text useful for teaching social work practice and as a fine contribution in the quest of professional growth as practitioner and supervisor. *Neuroscience for Social Work: Current Research and Practice* provides the well-seasoned social work practitioner much-needed tools to better understand the issues facing many of our clients. The chapters are written by professional social workers who understand the dynamics of social work practice and who have thoughtfully researched cutting-edge techniques in neurological medicine. The authors carefully consider the connection of neural circuitry development and functions to social work assessment, prevention and intervention modalities. Each chapter provides a guide to the neurobiological relationship with each developmental, behavioral, or life span topic; case study examples for application; and a discussion of ethical considerations inherent to each issue.

The editors initiate the concept of neuroscience in social work practice by incorporating a dialogue

between a social worker and a molecular scientist on brain chemistry and brain development, and the interplay between the brain and the environment. This clever utilization of dialogue to highlight the relationship of environmental stimuli, neural chemical reactions, and brain development is an excellent vehicle to capture the reader's interest.

The entire text is full of practical information too voluminous for this review; however, of particular interest is the article by Gerdes, Segal, and Harmon who provide a conceptualization of empathy and a technical look at the neural-architecture of empathy. The authors look at how "our brains mediate the subjective experience of empathy" (p. 33) and discuss exercises that can elicit empathetic responses from our clients, as well as how social work practitioners can effectively cultivate the use of empathy for successful client interventions.

Rosemary L. Farmer looks at research on "visuomotor neurons" (p. 37) and their effect on learning via imitation of others. Farmer discusses "mirror neurons" in the context of the brain's reaction to perceived intentions of others and the connection to the development of empathy. Farmer shows us how "mirror neuron" research provides an opportunity for a neurobiological view of brain activity during behavioral interactions.

One of the most important aspects of this text comes from the input of exceptional social work practitioners and academics. These authors provide insight about the use of neuroscience to enhance understanding in areas such as the impact of violence and aggression on the brain and subsequent issues on child development, traumatic brain injuries and their effect on military families, and working with those experiencing developmental disabilities.

The Council on Social Work Education (CSWE) outlines the use of neuroscience in trauma-informed social work education and encourages

the understanding of how neurobiological connections such as memory, cognitive attachment, and long-term somatic responses affect human stress and survival responses. CSWE's stance on addiction and fetal alcohol spectrum disorders (FASD) includes the application of neuroscience in assessment and intervention. This text provides social workers with a well-rounded overview of neuroscience applications on a multitude of client issues. The authors and editors provide the reader with material that can truly change the way social workers practice. The chapters motivate consideration of the opportunities for our clients' positive adaptation and recovery based on the inclusion of neuroscientific applications.

I strongly encourage social workers in all facets of practice to read this fine work. Further, I recommend *Neuroscience for Social Work* as a reference text along with other classic mainstays in the well-versed social work practitioner's library.