

## Preface

Neuropsychiatric disturbances of Parkinson's disease (PD) can be as disabling as the motor symptoms of the disease, yet these neuropsychiatric disturbances are only recently being intensively studied by clinicians and scientists. Upwards of 85% of PD patients evidence deficits in executive cognitive functions even early in the disease. Almost half of all patients progress toward a dementing illness that may occur late in the disease. More than half of all patients suffer severe anxiety or depression. Roughly 50% of patients suffer varying degrees and types of apathy, hallucinations, sleep disturbance, and impulse control disorders. Despite the devastation these disorders cause the patients and their families, the disorders have not yet received the attention they deserve from the biomedical sciences. Thus, there are few attempts to model theoretically or account for these disorders of PD.

This project describes a new “top-down” approach to neuropsychiatric disorders associated with PD. This is a technical and theoretical work that I hope will, nevertheless, eventually contribute to the development of new treatments for the various afflictions that affect persons with PD and their families. My main goal in this work, however, is not to describe new treatment options for people with PD but to arrive at a better understanding of the human mind and its breakdown patterns in patients with PD.

Traditionally, scientists take a bottom-up approach to the study of any system, object, or phenomena, and this approach, of course, is entirely justified. Examining the simplest possible elements or constituents in or of a system can lead to breakthroughs in identifying ultimate organizing principles, forces, or laws that govern the larger system. However, the top-down approach is worthwhile as well because it, too, can lead to identification of important principles, laws, and elements that govern operation of the larger system. Nowhere is this more clearly the case than in the study of individual human beings or persons. Each individual or person is

utterly unique in myriad ways (memory content, behavioral preferences and desires, belief systems, knowledge base, and so on). To some extent then (and one must *not* take this claim too far), one (not the primary but one) purpose of the human mind/brain is to build a person. The whole physiologic apparatus is to some extent designed to create this self structure or person. The human mind/brain can be seen as an elaborate, complex, and grotesquely baroque construction or “Rube Goldberg machine” patched together to produce this fragile thing we call the self. When the self structure is disrupted in a particular way, you get the breakdown patterns we see in various neuropsychiatric disorders, including the disorders we see in PD. By observing its breakdown patterns in PD, we get a glimpse into the inner workings of that most spectacular of structures of the self system—the agentic self, the self that acts. That at least is what I hope to demonstrate in this monograph.