Language Lateralization and Psychosis
Language Lateralization and Psychosis

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Preface

We tend to perceive ourselves as one person, with one consciousness, one mind. Yet, even a coarse inspection of the human brain tells us otherwise. Our brains consist of two separate hemispheres, connected by the fibers of the corpus callosum. How these hemispheres cooperate to form one thinking personality has fascinated brain researchers for centuries. Another mystery of the brain is that the degree to which the hemispheres share certain tasks (i.e., the degree of lateralization) can vary grossly between individuals. In general, even small alterations in the brain lead to devastating clinical symptoms. Cerebral lateralization obviously is an exception to this rule. Individuals may tolerate a partial or total reversal of functional differentiation between the hemispheres without loss of neurological or cognitive functions. On the other hand, differences in cerebral lateralization do lead to subtle differences in the way of thinking and, indeed, may predispose for psychosis.

The normal development of bodily asymmetry and lateralization of the brain is explained in the first section of the book. This section discusses the variation that occurs in language lateralization, its association with hand preference, genetic aspects, geographical differences and the influence of sex.

In the second section, research is reviewed on the association between language lateralization and psychosis. A more equal distribution of tasks between the hemispheres, allowing more language functions in the right hemisphere, appears to predispose for psychotic symptoms. The “additional” language from the right hemisphere may lead to psychotic symptoms such as auditory verbal hallucinations and formal thought disorder.

This book illustrates the important fundamental aspects of cerebral lateralization and integrates this knowledge to explain how decreased language lateralization can facilitate psychotic symptoms in the human brain.