General Characteristics of Schizophrenia

by Richard H. Hall, 1998

The discussion of schizophrenia within the context of neuroscience is particularly important given overwhelming evidence that indicates that schizophrenia has a strong biological basis, though the specifics of the underlying neurology are not completely understood. Before we address the issue of the neurological and pharmacological basis of schizophrenia, it's important to examine some of the general characteristics of this disorder.

In the most general sense, schizophrenia is a "disorder of thought", and, indeed, one of the prototypical symptoms of schizophrenia is the presence of **delusions**, which are beliefs that are significantly different from consensus reality. So, for example, schizophrenics may believe that a person or group of people are out to harm them in some way (i.e., paranoid delusions), or they may believe that they are some important/famous person, such as Jesus Christ (i.e., delusions of grandeur). Schizophrenics typically experience some type of hallucinations. That is, they experience things via their sensory system that others do not. The most typical of these are auditory hallucinations, though they can be visual, tactile, or even olfactory. Schizophrenia also sometimes includes a blunted or flat affect, meaning that they do not show emotion to the extent that most of us do. Odd motor behaviors, including catatonia, a cessation or slowing of movement, also often occurs in schizophrenia. Symptoms that include an addition or increase in behaviors, such as delusions and hallucinations are referred to as **positive symptoms**, and those that include a decrease, such as blunted affect and impoverished movement, are referred to as **negative symptoms**. As we will see, this fundamental distinction between positive and negative symptoms relates strongly to underlying biological factors, in that the former seem to be most associated with a neurotransmitter malfunction, while the latter appears to be most associated with structural deficits.

Schizophrenia occurs in about 1% of the population and this appears to be relatively constant across cultures. The onset of schizophrenia, that is, the first episode, most often occurs during late adolescence/early adulthood. It is often the case that someone is relatively normal for the fist 18-22 years of life before he or she develops this debilitating disease. There is almost no evidence that schizophrenia is due to some sort of childhood "trauma" or "stress", like poor parenting, such as early psychoanalysts believed. However, there is certainly evidence that more fundamental environmental factors, such as stress occurring in the womb, may play an important role in schizophrenia.