

## Public Abstract

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Title: A Study of Selective Attention in Young Autistic Subjects

Attentional processes are fundamental to human behavior because they determine which sources of information will be processed. The role of attention in information processing can be examined by asking a person to focus on one stimulus while ignoring another. Understanding of attentional processes and their development is of high priority because they can be seen as prerequisite to the development of higher cognitive functions. Selective attention has been extensively investigated in normal subjects, but interest in the attentional processes in autism is more recent. Autism is a developmental disorder that frequently manifests itself in disturbances of different aspects of attention, as well as other symptoms, such as social inadequacies, behavioral stereotypies, and communication delays. Progress towards understanding this complicated disorder, affecting about half a million people in the United States alone, is being made, yet many questions regarding autism still remain unanswered.

Pertinence level of the information that is not directly attended to, or its personal significance to the listener, is supposed to play an important role in the process of selective attention in normal subjects. The developmental disorder of autism has been found to affect different measures of attention, but the attributes of the information to be ignored have not been investigated. This study examines the effect of information pertinence in the distracting auditory channel on primary task performance in young autistic subjects as compared to typically developing children. A dichotic listening procedure, when two auditory channels are presented at the same time, and a bimodal selective attention task, when auditory stimuli are distracting while a person is performing a task in the visual modality, were implemented.

It was found that, although the autistic children performed as fast as control groups, they made more errors on the dichotic listening task even when matched on receptive language abilities. All groups were slowest and made the most errors when the irrelevant channel contained the participants' name or a negatively, emotionally charged word but the autism group made more errors with other verbal distractors as well. The first one or two presentations of these stimuli seemed to attract the most attention. It was concluded that even though children with autism appear to orient to the same types of stimuli as control groups, they are at a disadvantage when processing verbal stimuli in general.