

Frontal Lobe Dysfunctions in Korsakoff's Syndrome and Chronic Alcoholism: Continuity or Discontinuity?

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The effect of long-term heavy alcohol consumption on brain functions is still under debate. The authors investigated a sample of 17 Korsakoff amnesics, 23 alcoholics without Korsakoff's syndrome, and 21 controls with peripheral nerve diseases, matched for intelligence and education. Executive functions were examined for word fluency, the modified Wisconsin Card Sorting Test, an alternate response task, and an "n-back" working memory task. Korsakoff amnesics, but not alcoholics, showed a marked memory impairment. They also scored lower in each of the executive tasks—the alcoholics only in the alternate response task. This task also correlated with the years of the alcohol dependency. First, the authors conclude that Korsakoff's syndrome is associated not only with a memory impairment but also with a global executive deficit. Second, the decline in the ability to alternate between different responses argues for a restricted neurotoxic effect of alcohol on some frontal lobe areas.