

Neuroscience



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Neuropod Podcast Review The neuropod podcast on June 30th is about some interesting topics, stress related to life, how alcohol makes people aggressive, what the brain is doing while wandering and how ketamine lifts depression. This is a very interesting podcast with good scientific evidence base and discussion with the researchers. According to Jens Pruessner of the Douglas Mental Health University, being born and raised in city increases the lifetime risk of certain psychiatric disorders like anxiety and mood disorders like depression and schizophrenia and this is mainly related to stress in city living. The researchers evaluated volunteers from rural and urban areas and found that those living in city areas had greater stress responses in amygdala, an area in the brain that is mainly related to regulation of emotion and mood. Those who are brought up in urban regions have increased activity in the cingulate cortex that mainly regulates negative affect and stress. Thus, living in city life is stressful. The next topic discussed is the aggressiveness due to acute intake of alcohol. Haynes opined that acute consumption of alcohol causes dysregulation of the limbic system due to arousal and leads to aggressiveness and violence. This part of brain has serotonergic neurones which are vulnerable and can lead to increased arousal, aggressiveness and anxiousness. Individuals with chronic intake of alcohol, there is loss of neurones leading to chronic dysregulation of systems related to serotonergic neurones, especially the amygdala which predisposes an individual for aggression. Genetic factors also play an important role and those already predisposed with aggressive behavior tend to be aggressive and violent under environmental circumstances. Binge drinking is thus dangerous and behavior interventions must take these aspects into consideration. This discussion is followed by what brain does during

wandering. According to a scientist Neil Acrae from University of Aberdeen opines that certain networks of brain are functioning when the brain is wandering like as if there is spontaneous mental travel time, reflecting into the past, planning for future and cohering experiences of past, present and future, thus enabling one to make effective choices. Such a network in brain is default and independent of stimulus. The next topic discussed is the reversal of depression symptoms by ketamine. This is based on an important study by scientists from the UT Southwestern Medical Center. Lisa Monteggia, the co-author of the study opined that ketamine relieves depression symptoms within matter of few hours. This, according to the researcher is a significant finding because; the commonly prescribed antidepressants take several weeks for reversal of symptoms related to depression. This finding provides a novel pathway for exploration and development of antidepressants that are faster acting and longer acting too. The discussions in this neuropod broad cast are very interesting and have good scientific basis and discussion and are mind triggering. They deal with common psychological issues and topics like alcoholism, urban stress, depression and wandering of mind. The presentation is clear with a good flow of content in a crisp and clear manner. Source Neuropod. Stress and the city, how alcohol makes people aggressive, why ketamine can lift depression and what the brain is doing when the mind wanders. June, 2011. Web