



Monoamine transporters are known to transport monoamines from active sites to inactive sites. Serotonin transporter (5-HTT) and dopamine transporter (DAT) binding potential can be measured with PET brain imaging.

In the previous data slide it was argued that extracellular serotonin in cortex is lower during depression with severe pessimism and that striatal dopamine is lower during depression with more severe motor retardation.

The top graph shows that during depressive episodes, greater serotonin transporter BP is associated with greater severity of pessimism. The bottom graph shows that during depressive episodes, relatively greater dopamine transporter BP is associated with slower movement speed. This data is interpreted to argue that greater monoamine transporter density facilitates excess loss of monoamines which eventually contributes to greater symptom severity.

For much more detail see Meyer et al. Arch Gen Psych 2004 and Meyer et al. Neuroreport 2001.