Multiple lines of evidence robustly implicate the neurotransmitter dopamine in processes relevant to motivation, reward learning and psychopathology. A key feature of neurotransmitter systems is their ability to regulate themselves. I will review human neuroimaging and preclinical animal studies indicating that reduced autoregulation of dopamine is related to traits and processes underlying externalizing disorders. This reduced dopamine autoregulation model has implications for both personality and psychopathology. However, there are significant challenges in testing such a model with our currently available methodologies, especially given the dynamic nature of the dopamine system, which changes during normal aging and in response to both psychotropic medications and drugs of abuse.