# **Richard Depue**

Web Bio

# Information

# **Biography**

# **Biographical Statement**

I am interested in the neurobiology and neurochemistry that underlies the major traits of personality. With the aid of funding from the National Institute of Mental Health (NIMH), I study the relation of dopamine, serotonin, norepinephrine, and opiod function to the traits of extraversion, emotional stability, fear-anxiety, and affiliation, repectively, as well as to cognitive functioning. The developmental interest in these personality traits is that they define four major dimensions of temperament in children.

# **Department Website Summary**

I am interested in the neurobiology and neurochemistry that underlies the major traits of personality. With the aid of funding from the National Institute of Mental Health (NIMH), I study the relation of dopamine, serotonin, norepinephrine, and opiod function to the traits of extraversion, emotional stability, fear-anxiety, and affiliation, repectively, as well as to cognitive functioning. The developmental interest in these personality traits is that they define four major dimensions of temperament in children.

# **Professional**

#### **Current Professional Activities**

Professor Depue's work is on the neurobiology and neurochemistry associated with the structure of personality, emotion, and cognition. He is particularly interested in the personality traits of extraversion, fear-anxiety, affiliative bonding, and Behavioral Stability as they relate to neurotransmitter and neuropeptide functions. These latter systems are modulated pharmacologically in humans, and the sensitivity of the responses is assessed hormonally, emotionally, motorically, and cognitively. The work has direct implications for personality disorders and disorders of affect. Finally, the manner in which these systems come to be controlled by environmental context is addressed.

#### Research

#### **Current Research Activities**

Currently, research is being done on the role of mu-opiates in the reward that underlies social bonding. This is looked at in two ways: first, degree of affiliative

affective responding to affiliation-inducing film material and degree of heat tolerance to optic-heat is studied in placebo and opiate receptor-inhibition conditions, all as a function of social closeness - a higher-order affiliation personality trait. Second, a polymorphism in the gene for the mu-opiate receptor is being assessed in a large college population (N=1000), and then related to a) affiliative behavior rated over two weeks, b) affective response to affiliative film material, c) heat tolerance and cold tolerance (a mu-opiate mediated response) while alone and in the company of a close friend, and d) empathic response to pain experienced by a close friend.

This work follows from my Behavioral and Brain Sciences (2005) article that lays out a neurobehavoral theory of affiliative reward and affiliative behavior.

### **Extension**

### Education

#### **Education**

Ph.D 1971 - University of Oklahoma - Clinical Psychology

B.A. 1967 - Gettysburg College - Psychology / English Literature

#### Courses

### **Courses Taught**

HD 3660-Affective and Social Neuroscience

HD 4660-Psychobiology of Temperament and Personality

HD 6660-Genetic and Epigenetic Processes in the Development of Individual Differences

#### **Websites**

#### **Related Websites**

none

# **Administration**

#### **Administrative Responsibilities**

none

#### **Publications**

#### **Selected Publications**

Depue, R (2011). The Neurobiology of personality: Implications for conceptualizing personality disorders as dimensional, multifactorial phenomena. *International Review of Psychiatry* 23: 258–281. (Special Issue on Personality and

Personality Disorders. Guest Editor: Gerald Nestadt).

Depue (2009). Dopamine, motivated behavior and depression. International Encyclopedia of Depression. NY: Springer Verlag

Depue (2009). Epigenetic effects in the development of personality disorders. Development and Psychopathology.

Depue & White (2010). Neurobiology of personality: Use of a pharmacological challenge protocol. International Encyclopedia of Psychopharmacology. NY: Oxford University Press.

Depue (2008). Neurobehavioral dimensions in personality and personality disorders. In S. Wood (ed.), The Neuropsychology of mental illness. NY: Cambridge University Press.

Depue (2006) Neurobehavioral foundation of agentic and affiliative extraversion. In R Krueger (ed), Personality and Psychopathology. NY: Guilford Press.

Depue (2006) Dopamine in agentic and opiates in affiliative forms of extraversion. In T. Canli (ed), Biology of personality. NY: Guilford Press.

Depue & Lenzenweger (2005). Personality disorders as emergent phenotypes from mutiple interaction neurobehavioral systems. In Clarkin & Lenzenweger (Eds), Handbook of Personality Disorders, 2nd Ed. NY: Guilford Press.

Depue, R. & Morrone, J (2005). Affiliative stimulus-induced affectionate feelings and heat tolerance is blocked by u-opiate antagonism as a function of a human trait of affiliation. Behavioral Neuroscience.

Depue, R. & Morrone, J. (2005). Psychostimulant-induced contextual incentive facilitation of visuospatial working memory as a function of personality. Cerebral Cortex.

Morrone, J, & Depue R. (2004). Influence of personality on attribution of incentive salience to psychostimulant-paired context. Behavioral Neuroscience.

Depue, R. & Morrone J. (2004). Neurobehavioral foundation of affiliative bonding: Implications for a human trait of affiliation. Behavioral and Brain Sciences.

Depue, R. & Lenzenweger, M. (2001). Neurobiology of personality disorders. In J Livesley (ed.), Handbook of Personality Disorders. New York: Guilford Press.

Zald, D. & Depue, R. (2001). Serotonergic modulation of positive and negative affect in psychiatrically healthy males. Personality and Individual Difference 30:71-86.

Depue (2000). Neurobehavioral systems, personality and psychopathology. New York: Springer-Verlag.

Depue, R. A., & Zald (in press). Biological and Environmental Processes in nonpsychotic psychopathology. In C.Costello (Ed.), Basic Issues in Psychopathology. New York: Guilford Press.

Depue, R. A., & Collins. (1999). Neurobiology of the Structure of Personality:

Dopamine, facilitation of incentive motivation, and extraversion. Behavioral and Brain Sciences. 22:491-569.

White, T. & Depue, R. (1999). Differential association of traits of fear and anxiety with norepinephrine- and dark-induced pupil reactivity. Journal of Personality and Social Psychology 77: 863-877.

Depue, R. A. (1999). Relation of a D2 receptor agonist to the structure of personality.

Luciana, M, Collins, P., & Depue, R. (1998). Opposing roles for dopamine and serotonin modulation of visuospatial delayed-response performance. Cerebral Cortex 8:218-226.

Depue, R., Luciana, M., & Arbisi, P., Collins, P., & Leon, A. (1994). Dopamine and the structure of personality: Relation of agonist-induced dopamine D2 activity to positive emotionality. Journal of Personality and Social Psychology 67: 485-498.

Luciana and Depue, R. A. (1992). Facilitation of working memory by a D2 receptor agonist in human subjects. Journal of Cognitive Neuroscience.

Collins and Depue, R. A. (1992). A Neurobehavioral Perspective on Development