

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

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Teaching

Teaching and Advising Statement

In general, I wish to promote two types of thinking in teaching and advising. One is analytic, in which phenomena are taken apart into component processes in order to understand their mechanisms. The other is integrative or synthetic, where the focus is on seeing connections between disparate areas and arriving at new syntheses. These two types of thinking complement each other in arriving at a comprehensive understanding of brain-behavior relations.

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 assessed for genetic polymorphisms, 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, polymorphisms in the genes for the mu-opiate receptor and oxytocin receptor are being assessed in a large college population, and then related to a) affiliative behavior rated over two weeks, b) affective response to affiliative film material, c) heat tolerance (a mu-opiate mediated response) while alone and in the company of a close friend, and d) affective conditioning to a neutral human face.

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

Extension

Education

Education

Ph.D 1971 - University of Oklahoma - Clinical Psychology

Clinical Internship, Spring Grove Hospital Center 1969

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

Courses

Courses Taught

Spring 2014: HD 6200 Proseminar

Fall 2014: HD 4660-Psychobiology of Temperament and Personality

Fall 2014: HD 6660-Genetic and Epigenetic Processes in the Development of Individual Differences

Fall 2014: HD 6200 Proseminar

Websites

Related Websites

As DGS for Human Development, I created a large information site for HD graduate students on the HD Graduate Program website. I also upgraded the websites of the 7 HD Research Themes on the HD website.

Administration

Administrative Responsibilities

I became DGS of HD in July 2013. Since that date to December 2014, I collected a great deal of information in order to construct a report on the State of the HD Graduate Training Program, which served as the basis of the Graduate School-requested self-assessment of HD for June 2014. Information collected included: a) meetings with nearly all graduate students in HD, b) distribution of a faculty survey asking about various issues relevant to the HD graduate program, c) survey data from the Graduate School on HD graduate program and students. My report was distributed to the faculty in January 2014. Since then, I have conducted two field meetings to vote on the reports of two committees I constructed: one to develop new course requirements for the PHD, and a second to revise the admissions process. Both reports were voted into effect in Spring 2014. In Fall 2014, I evaluated the publication productivity of HD grad students, and found that their productivity was relatively weak. A field meeting in Spring 2015 is scheduled to provide the foundation of general discussion on improving the research training program in HD.

Publications

Selected Publications

Fu, Y, Selcuk, E., Schweitzer, P, & Depue, R. (under review). Human social learning is mediated by soft touch-induced affective conditioning as a function of variation in Mu-opiate, but not oxytocin, receptor genes.

Depue, R. & Fu, Y. (in press). Neurochemical Processes in Hedonics. In A. Toga & M. Lieberman (Eds.), *Brain Mapping: An Encyclopedic Reference*. NY: Elsevier.

Depue, R., & Moore, S. (in press). A multifactorial common final pathway model of anxiety. In D. Cicchetti (Ed.). *Developmental Psychopathology*. NY: Wiley-Interscience.

Moore, S., Fu, Y., & Depue, R. (2014). Individual differences in a social bonding trait modulate attentional capture by affiliative stimuli. *Frontiers in Personality and Social Psychology*, 1-16.

Depue, R., Fu, Y. (2013). On the nature of extraversion: Variation in conditioned contextual activation of dopamine (methylphenidate)-facilitated affective, cognitive, and motor processes. *Frontiers in Human Neuroscience* 7:1-17.

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