



**John J. Curtin**

**Award for Distinguished Scientific Early Career Contributions to Psychology**

**Citation**

“For the exemplary application of psychological science to elucidate fundamental psychobiological processes underlying the development and maintenance of substance abuse and other dysregulated behaviors. Drawing on theory and methods from clinical psychology, cognitive psychology, psychophysiology, and cognitive-affective neuroscience, John J. Curtin has generated and rigorously tested precise hypotheses concerning the reinforcing effects of substance use, the contribution of drug withdrawal to sustained substance abuse, the effects of intoxication on the expression of inappropriate behaviors (e.g., aggression, sexual risk taking), and the psychobiological characteristics that moderate a person’s vulnerability to substance abuse and other externalizing psychopathology. His ultimate contribution is further ensured by his exceptionally generous, skillful, and successful mentoring of undergraduate, graduate, and post-doctoral students.”

**Biography**

John J. Curtin grew up on Long Island, New York, in a cohesive Italian–Irish family that included his parents, Jack and Dolores, his younger sister Doreen, and a large extended family of grandparents, aunts, uncles, and cousins. Although he is a first-generation college student, Curtin never questioned that he would pursue higher education, thanks to his parents’ commitment to his academic success. While Curtin’s decision to leave Long Island for college

was not enthusiastically received by all, he is deeply grateful that his parents’ support never wavered, although in the later years of his doctoral work, his dad did occasionally ask if Curtin was ever going to get a real job!

Curtin’s interest in the technical aspects of psychophysiology was presaged by his first career choice as a young child. His room was always filled with broken toasters, radios, and other electronic devices in various states of “repair.” At this point in his life, he committed to a career as a trash collector so that he would have increased access to the coveted discards of others. The development of Curtin’s technical skills continued throughout high school and college both through formal coursework and fortunate choices in cars. Curtin remembers arriving to take an AP physics exam covered in grease from rebuilding the engine of his 1975 Chevy van in auto shop. In college, Curtin purchased a Triumph Spitfire convertible, whose cosmetic beauty was matched only by its electrical shortcomings. The Spitfire provided numerous opportunities to develop skills that remain quite valuable for troubleshooting problems with laboratory equipment.

Curtin left Long Island to pursue his postsecondary education at Johns Hopkins University. His interests in math, science, and electronics appeared to be a perfect match for his initial major in biomedical engineering. However, the suicide of a floor-mate in his dormitory during his freshman year altered his career path. The next semester, Curtin was trained as a counselor in a well-developed undergraduate peer counseling program supervised by Clare King. King further fostered this shift in Curtin’s interests, and by the end of his sophomore year he had switched his major to psychology.

Although his formal interest in addiction did not cohere until after college, Curtin had been fascinated by alcohol and drug use since adolescence. As a wrestler in both high school and college, he was part of the heavy-drinking athlete culture. However, he had ample opportunity to step back as an observer of this culture when he had to restrict his drinking to lose weight for important matches or tournaments. His informal observations of both healthy and unhealthy drinking continued while he was employed as a bartender during his later years in college.

In his last semester in college, Curtin had his first exposure to research on addiction while working for Martin Sherman at the Behavioral Pharmacology Research Unit (BPRU) at Hopkins. After graduation, Curtin obtained a full-time research technician position at BPRU that involved conducting comparative clinical pharmacology research for Harry June. In part, this research focused on psychophysiological indicators of naloxone-precipitated withdrawal from short-acting opiates. These experiences at BPRU were formative, as Curtin realized that using psychophysiological methods to examine important questions about the etiology of addiction could provide the means to integrate his interest in the science of psychology with op-

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opportunities to employ the quantitative and technical approaches (and cool electronics) that he found rewarding. It was also his first exposure to laboratory drug challenge and drug withdrawal research, which now forms the core of his own research program.

From BPRU, Curtin entered the doctoral program in clinical psychology at Florida State University. At Florida State, he was co-mentored by Alan Lang and Christopher Patrick. Lang has an active research program studying alcohol use and related problems. Patrick is a psychophysiological broadly interested in affective science, but with an emphasis on externalizing disorders. Curtin had found the ideal training environment. Lang provided Curtin with a model of the appropriately skeptical, hard-nosed methodologist who values logic and empirical evidence (and fast motorcycles) above all. Patrick provided the psychophysiological tools, a broad foundation in affective science, and an unmatched theoretical sophistication that Curtin will spend his career attempting to emulate (Patrick also played a mean game of pool). Add to these influences the other talented graduate students who overlapped with Curtin in the laboratory (e.g., Edelyn Verona, now an associate professor at the University of Illinois; Mark Miller, now a research scientist at the Boston VA), and the environment provided the perfect storm for research training. The energy and excitement that characterized a typical Friday afternoon research meeting was unique and sold Curtin on a research career in psychology.

The capstone of Curtin's clinical training occurred during an internship at the Brown University Clinical Psychology Training Consortium. During this year, he worked intensively with veterans suffering from alcohol and drug use disorders and/or posttraumatic stress disorder. Moreover, he had the opportunity to receive further research training in Peter Monti's laboratory at Brown's Center for Alcohol and Addiction Studies, one of the premier research centers for the study of addiction in this country.

After receiving his doctoral degree, Curtin had the incredible fortune to be recruited by the University of Wisconsin—Madison as an assistant professor. The University of Wisconsin—Madison is a special place. It has a long-standing tradition of training the leaders in psychophysiological research. More recently, its psychology department is arguably at the forefront of research in affective neuroscience. As such, Curtin has not been at a loss for productive, collaborative relationships with exceptional colleagues. Curtin is particularly thankful for the opportunities to collaborate with Tim Baker and Joseph Newman, both of whom have had important influences on his research program.

Curtin is an experimental psychopathologist whose research program uses psychophysiological indices of emotional response (e.g., fear-potentiated startle) and cognitive processing (e.g., event-related potentials) to examine two categories of questions regarding the etiology and develop-

mental course of addiction. The first concerns the motivational basis of addiction—that is, what are the nature and origin of the urge to use drugs? Theorists indicate that drug addiction results from neuroadaptive change in motivational systems in response to repeated drug exposure. Many theories (such as those of Solomon and Corbit; Koob and Le Moal; and Tim Baker and colleagues) highlight adaptation in stress systems as one critical mechanism in the etiology of addiction across many classes of drugs. In short, repeated homeostatic adjustments in stress systems during periods of acute drug intoxication eventually lead to persistent compensatory adaptations in emotional response (e.g., increased anxiety) and its neural substrates, which result in further drug-seeking behavior. Curtin's research program has used systematic laboratory drug administration and drug withdrawal studies in humans to identify and clarify these stress-related adaptations that motivate addictive drug use (e.g., Curtin, Lang, Patrick, & Stritzke, 1998; Curtin, Patrick, Lang, Cacioppo, & Birbaumer, 2001; Hogle & Curtin, 2006; Piper & Curtin, 2006).

Curtin also studies the control of behavior among drug users. He conducts laboratory research to study the regulation of behavior during periods of acute intoxication (e.g., to identify the cognitive mechanisms that account for aggression, sexual risk-taking, and other intoxicated behavior; Casbon, Curtin, Lang, & Patrick, 2003; Curtin & Fairchild, 2003). Moreover, he has recently initiated a series of experiments to examine individual differences in cognitive control as a premorbid risk factor for the development of alcohol and other drug use disorders. Curtin has received generous support for this research program from the National Institute on Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse, the National Institute of Mental Health, and the Alcoholic Beverage Medical Research Foundation.

Curtin is a committed mentor and teacher. He finds training future scientists as rewarding as the scientific process itself. He regularly teaches undergraduate and graduate courses on the etiology and treatment of addiction as well as the tools of science, including general research methodology, statistics, psychophysiology, and programming techniques. He has received both department and university awards for his undergraduate and graduate teaching.

When not at work, Curtin continues to maintain an active, adventurous life. These days he has traded the smelly, windowless wrestling and weight rooms for the sensory pleasures of the outdoors. He is an avid cyclist and runner who frequently competes in endurance running and triathlon races. He is also an enthusiastic backcountry camper and rock climber who is nurturing a growing interest in mountaineering (not easy to do in Wisconsin!). He is joined in many of these activities by his best friend, and now wife, Melody Niwot. Psychological science was incredibly important at the start of this romantic relationship,

as their first date involved rock climbing on the eastern bluffs at Devil's Lake State Park (as close to a suspension bridge as Curtin could find in his initial courtship of Melody). Thanks to Melody, a doctoral student in Italian literature, he can now also bluff his way through cocktail party conversation about Dante, Boccaccio, Pasolini, and even Antonioni. He remains excited about what the future will bring in every way.

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