

# Colloquium with Dr. Marc N. Branch

Monday, October 27, 2014

3:30 pm – 5:00 pm

University of South Florida  
Westside Conference Room E

**ABA** *Applied Behavior Analysis*  
*Program at the University of South Florida*

## About Dr. Branch

After receiving his PhD from the University of Maryland, and a year at the Worcester Foundation for Experimental Biology, Marc took a position as an assistant professor at the University of Florida in 1973. He has remained there since, where he is now an Emeritus Professor. Along the way he served, among other positions, as Chair of Psychology Department, President of the Association for Behavior Analysis, Chair of two NIH study sections, and member of several others, and Editor of both the *Journal of the Experimental Analysis of Behavior* and *The Behavior Analyst*. He has published over 100 refereed papers, the most recent of which, "Malignant side effects of null-hypothesis significance testing," he hopes you'll read and give to all your friends who do research.

## The Crisis of Replicability: A predictable result of null-hypothesis significance testing

### **Marc N. Branch, PhD**

Professor, Department of Psychology  
University of Florida



Recently, in the biological and behavioral sciences concern has arisen about the demonstrated lack of reliability (i.e., repeatability) of published research results, something that has been shown to be epidemic in proportion (see Ioannidis, 2005, "Why most published research findings are false"). In this talk, I try to make the case that reliance on statistical significance as a criterion for publication has made the crisis inevitable because of the widespread, but mistaken, opinion that a *p* value from a statistical test provides an estimate of the probability of repeatability. I begin the talk by demonstrating, as have many others, why *p* values provide NO information about whether an experimental result is likely to be repeatable, and then go on to summarize other ways reliance on significance testing is retarding biological and behavioral sciences. Finally, I offer suggestions about alternative paths forward.

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