

SEMINAR

Random Effects Old and New

Jim Hodges

Division of Biostatistics
University of Minnesota

Wednesday, September 19, 2012

3:30pm

Mayo D199

Minneapolis Campus

Abstract:

The term "random effect" is used much more broadly now than it was, say, 50 years ago. At that time, a random effect was an effect having (in analysis-of-variance jargon) levels that were draws from a population, and the draws were not of interest in themselves but only as samples from the larger population (e.g., Scheffe' 1959, p. 238). By contrast, new-style random effects have levels that are not draws from any population, or that are the entire population, or that may be a sample but a new draw from the random effect could not conceivably be drawn; and the levels themselves are usually of interest. All such new-style random effects can be understood as formal devices to facilitate smoothing or shrinkage, interpreting those terms broadly. The distinction between old- and new-style random effects is not a mere nicety but has practical consequences for inference and prediction, simulation experiments for evaluating statistical methods, and interpretation of analytical artifacts. Therefore, this distinction should be developed beyond the catalog of examples and consequences given in this paper and incorporated into statistical theory and practice.

*A social tea will be held at 3:00 P.M. in A434 Mayo. All are Welcome.
For more details contact 612-624-4655 or see <http://www.sph.umn.edu/biostatistics/seminars/>*