

Personality is a concept enabling us to describe the systematical individual differences in behavior. It includes many behaviors, like exploration, activity, aggression, reaction to new stimuli, or sociability. The individuals differing in their exploration strategy are called fast and slow explorers, those differing in the level of aggression and the reaction to stress are called proactive and reactive individuals. If a certain group of behaviors appears together, we talk about behavioral syndromes.

There are many definitions of personality, but most of them share a demand for time consistency. Repeatability is one of the tools for measuring this consistency. It's a correlation among repeated measures of the same individual. It is counted either as Spearman's or Pearson's correlation, or as an intraclass correlation coefficient, using variance components acquired from ANOVA, GLMM, or LMM.

My original assumption was that the most repeatable behaviors are the ones demanding an immediate answer to the current situation. I executed a meta-analysis of the repeatability of behavior to test this hypothesis. I found the highest repeatability in aggression and the lowest in exploration. Other important factors were the identity of the source study, number of repeats, number of tested animals, and the method of calculation of the repeatability. To my surprise I found no effect of the interval between the tests on the repeatability.