**Farzinnia McCardle**

We develop a Bayesian framework for estimating the means of two random variables when only the sum of those random variables can be observed. Mixture models are proposed for establishing conjugacy between the joint prior distribution and the distribution for observations. Among other desirable features, conjugate distributions allow Bayesian methods to be applied in sequential decision problems.

Values must approach to mean be picked up on.

**Etner Jeleva Tallon**

The basis of most advances – the natural fact that acting in a situation in which one has very little knowledge of the odds of different scenarios is very different from acting when the odds are known

People are slow to act with little information.

**Charness Levin**

We examine decision-making under risk in a laboratory experiment. The heart of our design examines how one’s propensity to use Bayes’ rule is affected by whether this rule is aligned with reinforcement or clashes with it. In some cases, we create environments where Bayesian updating after a *successful* outcome should lead a decision-maker to make a change, while no change should be made after observing an *unsuccessful* outcome. We observe striking patterns: When payoff reinforcement and Bayesian updating are aligned, nearly all people respond as expected. On the other hand, when these forces clash, around 50% of all decisions are inconsistent with Bayesian updating; a slight increase in the precision of the information and decrease in the complexity of the calculations does not lower the error rate. However, when a draw provides only information (and no payment), switching errors occur much less frequently, suggesting that the ‘emotional reinforcement’ (*affect*) induced by payments is a critical factor in deviations from Bayesian updating. We also find considerable behavioral heterogeneity across the population. Finally, we see that people have a “taste for consistency”, as voluntary draws are more likely to be repeated than draws that were required.