**BDE7**

BDE 7 employed a slightly different mechanism with the same properties as the Quincunx to see whether the results are idiosyncratic to that one randomizing mechanism.

**Participants**

There were 112 total participants who participated via Amazon’s Mechanical Turk in exchange for $.50 and a chance at a $40 prize.

**Hypothesis**

We expected that we would see more precision in the jumping bean condition, especially in SPIES distributions.

**Results**

We expected those in the jumping bean condition would assert greater confidence that the bean would land in the middle position. Those in the jumping bean condition reported a mean confidence of 27% that they had correctly identified what would happen, compared with 26% in the ball-drop condition. This difference is nowhere near statistically significant in a 2 (ball vs. bean) X 2 (order: SPIES vs. item-confidence first) ANOVA, F(1, 108) = .4, p = .53. Neither the main effect of order nor the interaction attains significance.

There was however, greater precision (smaller variance) in the SPIES distributions reported of jumping beans (M = .076) than of dropped balls (M = .090). A 2 X 2 ANOVA reveals this main effect to be significant, F(1, 89) = 10.88, p = .001. Neither the main effect of order nor the interaction is significant. See Figure 3. (Note that the sample size drops due to missing data attributable to a survey design error.)

Figure 3. SPIES distributions for the jumping bean and ball-drop experimental conditions.

In addition, in order to examine subjective probability distributions for something with which people are more familiar, we asked people to estimate the heights of American males. Participants asked, “We are going to pick a man at random from a large group of men in the United States, and round his height to the nearest inch. How likely is the man to be each of the heights listed below?” They were then asked for a SPIES distribution with 11 categories from “Shorter than 5 feet, 6 inches” to “6 feet, 3 inches or taller.” The results appear below. People look remarkably well calibrated.