Precognition?

In his paper "Feeling the Future: Experimental Evidence for Anomalous Retroactive Influences on Cognition and Affect" (J. Personality and Social Psychology, 2010; http://www.apa.org/pubs/journals/psp/index.aspx) Daryl Bem documents nine experiments that show a small but statistically significant ability of test subjects to predict which of several randomly generated alternatives will appear.

One effort to reproduce Bem's Study #8, published recently by Galak and Nelson "A replication of the procedures from Bem and a failure to replicate the same results" (http://ssrn.com/abstract=1699970) has not supported Bem's conclusions.

On my website I have created and posted a highly simplified computer program "Precog.jar" that can be downloaded and run on most platforms. Double click it to run it. It contains a simple user choice "Heads" or "Tails" choosable with mouse clicks or keyboard. Each user choice triggers a pseudo-random number generator. Each hit turns the program window green; each miss turns it red.

The accumulated statistics of hits and misses are accumulated and displayed.

The quantity HitFrac is the number of hits divided by the number of trials. Pure random choices would converge to HitFrac = 0.500.

The quantity GausProb is the two sided probability of a deviation from 50% that is larger than the current HitFrac. Purely random choices would give GausProb ~ 0.5, with very unusual statistical runs (good or bad!) would give low values to this quantity.

The quantity phi is defined by Bem (page 18) and is an unbiased estimate of the correlation between user choices and random number choices. Unbiased random choices should converge towards small numbers. Unusually high correlations between user and machine choice lead to positive phi values, with a maximum of 1.00.

Enjoy,

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