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**Why the most risk-averse take the biggest risks: a quantitative reanalysis of Atkinson's and Litwin's "hoop-the-peg" experiments. Part 2: Establishing the raw data**

ABSTRACT. The psychologists Atkinson and Litwin set out to explore the tendency for anxious people to set their aspirations either very low or, apparently paradoxically, extremely high. They designed an experiment around the hoop-the-peg game. Their results, based on the observed behaviour of male university students, provide quantitative data on the tendency of more anxious people to select either very safe or very risky options. Unfortunately Atkinson's and Litwin's results were presented in filtered form, with the definition of the filter not fully specified. This paper will show that a recursive rolling average was almost certainly used. Once the form of the filter is established, the unfiltered, raw numbers of shots taken from each throwing position can be back-calculated. Arguments are presented for the players' subjectively assessed probability of failure being a linear function of throwing distance. The probability so derived may be used in conjunction with the raw shots data to produce probability distributions for selecting a task of given degree of difficulty. These results feed directly into the immediately preceding Part 1, where the concept of risk-aversion is used in a mathematical description of the hoop-the-peg exercise. Part 1 tests and validates the model against the empirical probability distributions found here.

**Keywords:** hoop-the-peg, psychological experiment, psychological measurement, risk-aversion

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