

Beyond Hyperbole and Hypothesis: A Protocol for Measuring Intuitive Behavior

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Principal Topic

Much of the literature on intuition in business monographs and journals takes a phenomenological approach. Some of this work dates back as far as the early 1930s. The modern-day approach primarily adopts a cognitive-psychological perspective, which utilizes self-report measures of intuitive perception and behavior. The consistent theme is that entrepreneurship is learned behavior, yet there is no robust empirical evidence that supports this viewpoint.

The scientific understanding of intuition in business has not progressed very far in the last 50 years due to two major limitations in the current research on intuition. First, much of the work is theoretical in nature and makes no contribution to an understanding of the conditions under which and processes by which individuals access and successfully use intuition to inform their business decisions and behavior. Second, beyond qualitative approaches relying on the case-study method and quantitative approaches based on cognitive measures involving self-report instrumentation, there is a lack of rigorous, objective methods for studying intuitive perception and behavior in business. Thus, in the absence of solid experimental evidence to support or discount the role of intuition in successful business behavior, the field is left with much that is hypothetical and hyperbole, masquerading as scientific knowledge.

This paper seeks to contribute to a rectification of this state of affairs by describing an experimental protocol for electrophysiological measurement of intuitive perception and behavior that has been successfully pilot-tested in a recent study of serial entrepreneurs in the Cambridge Technopole (UK). The primary focus of the paper will be on describing the logic, rationale, procedures, and preliminary results of the research methodology of the experimental protocol. The protocol has its measurement basis in recent experiments which have shown that intuitive information about a future event is perceived by the body's psychophysiological systems (Radin, 1997), and that the processing of this pre-stimulus information can be reliably measured with electrophysiological instrumentation (McCraty et al., 2004a, 2004b). Research results should be interpretable within the terms of a recent quantum-holographic theory of intuition (Bradley, 2006).

Methodology/Key Propositions

Drawing on the research design of McCraty et al. (2004a, 2004b), two experimental protocols—a generic intuition measurement protocol and a protocol for measuring entrepreneurial intuition—have been formulated to assess pre-stimulus indicators of intuition. The rationale for the two protocols is to determine the degree to which intuition is a general psychological ability existent across many domains, or is specific to those individuals who practice within a certain domain of life. The first protocol (Atkinson & McCraty, 2005) is designed as a generic instrument for assessing intuitive ability throughout the whole population. It takes a gaming simulation approach and requires the subject to guess/intuit the outcome of a series of 25 roulette wheel spins. For each trial, the subject must choose among four possible dollar amounts to place on red or black. After a 12-second delay, the computer randomly selects the winning color, which is displayed on the screen. After a short delay, the next trial begins. Throughout the process, measures of heart rate variability (HRV) and skin conductance level (SCL) are recorded continuously over all test trials. Data analysis examines the relationship of wins and losses to the electrophysiological measures in the three primary phases of the trial—pre-stimulus, post-choice waiting period, and post-presentation of result display. The second protocol (Gillin, Atkinson, Bradley, & McCraty, 2006) is designed to measure intuition in a specific domain of activity—namely,

business entrepreneurship. It is organized as an entrepreneurial opportunity in which subjects are presented with a series of company profiles for which they must choose among four investment options, including no investment and investment choices of three increasingly higher dollar amounts. The company profiles are from a mixed sample of 25 real high-growth-potential and low-growth-potential businesses (La Pira, Gillin, & Scicluna 2006), and are randomly presented to the subject. After the subject makes his/her investment choice, results are presented following a fixed 6-second delay. Measures of HRV and SCL are recorded continuously through the test trials. Data analysis examines the relationship of good versus bad investment decisions to the electrophysiological measures in the three primary phases of the trial-pre-stimulus, post-choice waiting period, and post-presentation of result display.

Results and Implications

Following La Pira & Gillin's (2006) concept of "triangulation," the results from the experimental protocols will be triangulated against additional data collected from the Cambridge entrepreneurs through the Cognitive Style Index and in-depth interviews. Results of preliminary analysis of the electrophysiological data collected during the pilot test of the protocols confirm the involvement of the entrepreneur's autonomic nervous system in intuitive decision-making. Of particular interest are the differences in HRV and SCL values during the pre-choice period, both in the first protocol prior to a correct roulette wheel intuitive bet, and also in the business protocol prior to a successful investment choice.

On the basis of these preliminary results, the two experimental protocols appear to offer a rigorous, objective measurement means of assessing pre-stimulus indicators of intuitive ability.

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