

Cognition, Metacognition and the Acquisition of Knowledge

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It is axiomatic that human beings have always managed without having to measure what they have managed. But for **effective** management to occur, measurement must be seriously considered. Otherwise, how can we tell that we are managing well?

People learn from trial and error, and so do animals. One day the family cat tried to lick a hot teabag that I had just clumsily tossed into the open rubbish bin in the kitchen and which had landed on the floor. As the cat licked it, he burned his tongue. Now every time he sees a teabag dangling from someone's hand, the cat quickly runs away. What differentiates our behaviour from that instinctive behaviour is our ability to know about knowing — that is our metacognition. Without it, we would have never been able to evolve as a species. Without it, no progress can ever be achieved.

On the way home tonight, I reflected on the process of knowledge acquisition and the interest knowledge management has attracted. As I passed road signs and occasional bouquets of flowers left on the roadside in memory of road accident victims, I couldn't help but wonder about our unique metacognitive skills as a species. Yet it takes an accident to claim a life before the road authorities rectify a problem with a road design. It takes a major disaster to get the relevant authorities to act to fix a faulty structure or defective engine in an airplane or a train. It would probably take a nuclear explosion before we could realize the importance of safety measures. Trial and error? Maybe, but why leave it to chance?

It is true that we can manage without measuring. But without a means of knowing how good our designs, contrivances and contraptions are we will be forever flying by the seat of our pants creating the illusion that we are managing when we can barely manage.

Metacognition is self-regulatory mechanisms that we develop and employ in our attempts to solve problems. Metacognition includes among other things checking the outcome of any attempt to solve a problem, planning the next move and monitoring the effectiveness of any attempted action. In a knowledge-enabled world, we cannot afford to be extemporaneous and impulsive about what we know and do not know. In a world of high technological sophistication, we cannot afford to be complacent about measurement. It is true that metrics and all statistics for that matter can be manipulated, massaged and dressed up, but the fact of the matter is that if we do not have a yardstick against which to measure our actions and endeavours we will be forever trying and erring!

Finally, as the American philosopher Ralph Waldo Emerson (1803-1882) once said “Our knowledge is the amassed thought and experience of innumerable minds.” (Letters and Social Aims). As we advance, we adopt, acquire, check, reject, revise, incorporate and synthesize knowledge and in doing so we measure whether consciously or subconsciously, explicitly or implicitly. “Measure a thousand times and cut once”, the saying goes!

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