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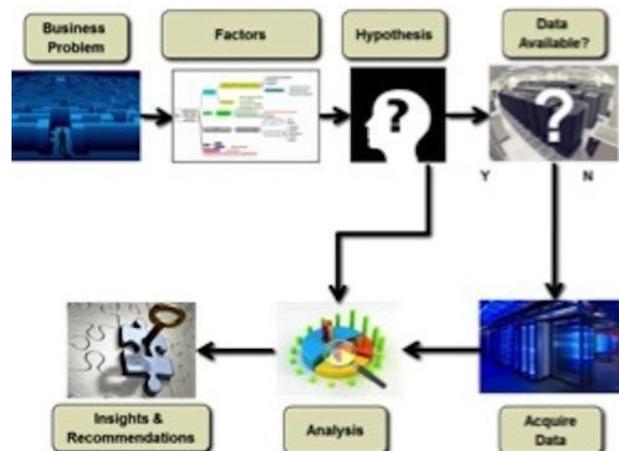
Symbiotic Duality of Learning Holmes & Columbus-Not Holmes vs. Columbus

In his book *Thinking, Fast and Slow*, the Nobel laureate Daniel Kahneman writes that the human cognitive machine has developed two systems of thinking. System 1 is intuitive and fast but prone to cognitive bias, while System 2 is analytical and slow but prone to “analysis paralysis.” Making effective decisions requires both types of thinking, along with the ability to know and decide which system to override and which to use in a given situation.

	System-1: Thinking Fast ...	System-2: Thinking Slow ...
	Operates automatically and quickly, with little or no effort and no sense of voluntary control Continuously constructs a coherent interpretation of what is going in the world at any instant	Allocates attention to the effortful mental activities that demand it, including complex computations. Good at balancing probabilities and possibilities but is saddled with a key weakness - it is not always decisive ('analysis paralysis')
Characteristics	Domain-specific automatic processor <ul style="list-style-type: none"> Quick (or Reflexive) Heuristic based Relies on 'short-cuts' 	General-purpose rational processor <ul style="list-style-type: none"> Deliberate (or Reflective) Conscious Rule-based
When does it come into play	<ul style="list-style-type: none"> Intuitive answers to problems where speed of reaction is important To avoid decision paralysis, when System-2 reaches a state of cognitive overload 	<ul style="list-style-type: none"> Takes over when System-1 cannot process the data Capable of correcting/overriding System-1 if it is convinced that the intuition is wrong

The use of data (or, in simpler terms, “observations”) helps individuals and organizations hone their System 1 and System 2 abilities. Traditionally, most organizations look at analysis and data only when they have to solve a business problem or address a business priority. This problem-specific way of looking at data (the “Sherlock Holmes” method, as described in the Point post and in the diagram below) starts from a definition of the business problem, proceeds to identifying factors affecting the business problem, and leads to hypotheses, which get tested on data to help derive insights and recommendations.

Problem-Driven (Holmes) Approach



This structured approach to data and problem solving relies on structured analytical thinking. It helps hone the System 2 part of the brain, and it is easier to enable in an organizational context, since data and analytical investments are in service of a business case.

However, this approach can be myopic.

In his book, [*Where Good Ideas Come From: The Natural History of Innovation*](#), the digital futurist Steven Johnson writes that innovation is facilitated by habitats that encourage exploration based on hunches, enabling connections of ideas in liquid environments while allowing the reuse of prior knowledge and encouraging the freedom to err and fail.

Discovery-Driven (Columbus) Approach



In contrast, the business problem-driven approach to data and analysis by its very nature is constricted and lowers the potential to discover opportunities.

What is needed is an approach that starts with agenda-less observations and exploratory data analysis that can lead to hunches, pattern discovery, and generation of new ideas and opportunities. This discovery-driven approach (the “Christopher Columbus” method) is also critical to honing System 1 thinking, since it entails looking at large amounts of information and building an internal anticipation repository that feeds intuition. However, organizations are usually reluctant to follow this path, since the return on investment is unpredictable.

Eventually, helping organizations make better decisions becomes a mixture of art and science. Organizations will need to traverse the design thinking path from mystery to heuristic to algorithmic in their endeavors to solve business problems and spot opportunities. Leveraging and navigating this duality between the problem-driven (Holmes) method and the discovery-driven (Columbus) method will be critical to success.