Review on How to Grow a Mind: Statistics, Structure and Abstraction by Joshua B. Tenenbaum, Charles Kemp, Thomas L. Griffiths, Noah D. Goodman

To detect and object from a scenario consisting of various things, a child need to learn it through a data structure which he has generalized previously. Only remembering from a few event the child is able to process through a lot of information and detect the object appropriately. In general, our brain works as a computer which processes inputs from our sensory organs and output to cognitive solutions. To mimic this approach in machine learning we need an abstract knowledge base and determine a way to process it through learning and output in inference. Questions remains as – the formation of this abstract knowledge data and ways to acquire it.

The Bayesian Model of learning refers to a well-constructed knowledge base in which statistical approaches are used to obtain desired output. A comparator provides results of inference for a particular model analyzing the knowledge base with different complexities of the same model. It takes probabilistic approach to define the best match for a declared hypothesis. The **prior probability** (probability of an event before new data involves in system) is updated to **posterior probability** of hypothesis with respect to new data (probability of an event after new data is included) as the product of prior probability and posterior probability of data with respect to occurrence of hypothesis.