

# A Strong Artificial Intelligence Mimic of Bernard Lonergan's Cognitional Processes

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## **Abstract**

Artificial intelligence (AI) can be divided into weak AI and strong AI. The self-driving car, mobile phone, robotic arms are classified as weak AI. Even the current deep learning is also a technique for weak AI because it is designed for a particular purpose. Strong AI, as compared with the weak AI, is regarded as a device that can think and learn like humans do. With regard to philosophical concerns, the self-consciousness and the emergence of intelligent creatures are more closely related to humanity. In this research, we are at the dawn of probing the Bernard Lonergan's cognitional processes: experience (E), understanding (U), judgment (J), decision (D), and reasoning (R) using algorithms and data. The aforementioned five processes are described as the followings: The process of experience (E) is to collect information and data in the past. It will lead to the understanding process (U). The (U) will move on to the process of judgment (J)

and the (J) may conclude in the decision process (D). All of the four processes, (E), (U), (J), and (D), are related to the process reasoning (R). Therefore, the relations are  $E = E(R)$ ,  $U = U(E, R)$ ,  $J = J(U, R)$ ,  $D = D(J, R)$  and  $R = R(E, U, J, D)$ .

In this talk, we will introduce the similarity plus (SP) code which is developed by ourselves. SP codes based on observation of human and it has the following characters:

1. The SP codes consists of frame and data.
2. The SP codes could generate others.
3. The main-driven program could be any one of them.
4. Each code can generate a new one (birth) and dies.
5. A random activation is involved.

Meanwhile, we are going to construct the model for the cognitional process. In more precise, once the input sentence given, the experience is to find the related information with the input sentence and the understanding is to extract the next feedback with the input sentence after the experience from the history data. The judgement is made from the understanding and the input sentence. The decision bases on the random choice and the reasoning is explored by the iteration of the cognitional process.