On the formation of serendipity in terms of thinking mechanism

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This short paper presents my preliminary attempt to describe the formation of each type of serendipity using an oversimplified model of non-linear thinking. The types of serendipity discussed here are based on the categorization presented in the article “Serendipity as a Strategic Advantage?” (Napier & Vuong, 2013).

Premises:

- A hypothetical single thinking process requires a goal point, one or many starting points, and one or many routes connecting the starting points and the goal point (multiple routes between two points are possible).
- All routes must be connected simultaneously to successfully reach the goal (producing the desired thought) – think of a chemical substance made from many components which are all required for its existence.
- There are shared routes among different thinking processes – think of one component being in different substances.
- The goals can be intended (as the desired result of active thinking) or unintended (not set nor known by oneself).

Descriptions:

Goal A' requires routes (1) and (2); Goal B' requires routes (2) and (3). Route (2) is shared.

- Normal problem solving: Only process A-A' with intended goal A', successfully find route (1) and (2) from A. Goal A' is achieved.
- Serendipity type I (goal A' comes from B): In process A-A' with intended goal A', only find route (1) from A. In process B-B' with unintended goal B', only find route (2) from B. Goal A' is achieved, B' is not.
- Serendipity type II (goal B' comes from A): In process A-A' with intended goal A', only find route (2) from A. In process B-B' with unintended goal B', route (3) from B has been found prior to process A-A'. Goal B' is achieved, A' is not.
- Serendipity type III (finding routes prior to setting goals): Process A-A' has already been completed in advance. Goal B' is initially unintended but later becomes intended. Now route (2) from A and (3) from B are both found, goal B' is achieved.

Some further comments:

- When dealing with problems similar to the ones encountered before, we tend to try routes that were found to be successful in the past.
- In type III, goal A' is usually mundane or of low perceived values compared to B', which creates the illusion of route (2) from A “coming from nowhere”.
- The perceived value of thoughts with unintended goals are unknown (default as neutral, or zero), and thus are more likely to be hastily discarded compared to thoughts with intended goals.
- The routes for problems that require innovative solutions are those with novel routes – which are hard to find especially when we often employ (old) thinking strategies based on known references.

This paper is a follow-up discussion of my arguments on serendipity and non-linear thinking (Le, 2021a, 2021b).

Update: More detailed discussions in the full book “A New Theory of Serendipity: Nature, Emergence and Mechanism” (see References).

References

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