Translation of the Golden Ratio into the rules of Thinking - Logical Inference. 6 Laws

Translation into English: Laws of Correct Thinking

The laws of correct thinking are principles that allow us to make justified and logically consistent conclusions. Based on R_{L1}-R_{L6}, the following laws are formulated:

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1. **Law of Belonging (CT1):**
   If an object P_n satisfies established conditions, then it belongs to a specific category.
   Formulation:
   $$If\ x_n = F(n) \cdot \cos\left(\frac{\pi}{2} \cdot n\right)\ and\ y_n = F(n) \cdot \sin\left(\frac{\pi}{2} \cdot n\right),\ then\ P_n \in \text{Fibonacci Spira}$$
   Principle: For an object to belong to a category, it is necessary and sufficient to meet the criteria for belonging.

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2. **Law of Sequence (CT2):**
   Every element of a system is derived from previous elements based on clear rules.
   Formulation:
   $$If\ F(n-1)\ and\ F(n-2)\ are known,\ then\ F(n) = F(n-1) + F(n-2).$$
   Principle: In any sequence, the elements are causally related.

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3. **Law of Angular Increment (CT3):**
   A change in one parameter determines a predictable change in another.
   Formulation:
   $$If\ \theta_{n-1}\ is known,\ then\ \theta_n = \theta_{n-1} + \frac{\pi}{2}.$$
   Principle: The sequence of changes in the system's elements follows an established regularity.

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4. **Law of Deterministic Construction (CT4):**
   Each element of the system can be fully determined by known parameters.
   Formulation:
   $$If\ F(n)\ and\ \theta_n\ are known,\ then\ P_n = (F(n) \cdot \cos(\theta_n),\ F(n) \cdot \sin(\theta_n)).$$
   Principle: Each object or event has specific, unambiguous characteristics.

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5. **Law of Uniqueness (CT5):**
   Different elements of the system cannot be identical if they have unique inputs.
   Formulation:
   $$If\ n \neq m,\ then\ P_n \neq P_m.$$
   Principle: Unique input parameters lead to unique results.

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6. **Law of Continuity in Construction (CT6):**
   Sequential application of rules leads to a continuous and logically connected result.
   Formulation:
   $$If\ P_0, P_1, \ldots, P_{n-1}\ are constructed according to the rules,\ then\ P_n\ extends the spiral.$$
   Principle: A logical sequence of actions guarantees the continuity and integrity of the process.

Final Statement:

The laws of correct thinking $CT1 - CT6$ ensure the rigor, logical consistency, and determinism of reasoning, applicable both to mathematical objects and any systems governed by strict rules.

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Перевод правил логического вывода в законы правильного мышления

Законы правильного мышления – это принципы, позволяющие делать обоснованные и логически непротиворечивые выводы. На основе R_{L1}-R_{L6} формулируются следующие законы:

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1. **Закон принадлежности (ЗМ1):**
   Если объект P_n удовлетворяет установленным условиям, то он принадлежит определённой категории.
   Формулировка:

   $$\text{Если } x_n = F(n) \cdot \cos\left(\frac{\pi}{2} \cdot n\right) \text{ и } y_n = F(n) \cdot \sin\left(\frac{\pi}{2} \cdot n\right), \text{ то } P_n \in \text{Спираль Фибоначч}$$

   Принцип: Для принадлежности объекта необходимо и достаточно выполнения критерия принадлежности.

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2. **Закон последовательности (ЗМ2):**
   Каждый элемент системы выводится из предыдущих на основании чётких правил.
   Формулировка:

   $$\text{Если } F(n-1) \text{ и } F(n-2) \text{ известны, то } F(n) = F(n-1) + F(n-2).$$

   Принцип: В любой последовательности элементы связаны причинно-следственными отношениями.

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3. **Закон углового прироста (ЗМ3):**
   Изменение одного параметра определяет закономерное изменение другого.
   Формулировка:

   $$\text{Если } \theta_{n-1} \text{ известно, то } \theta_n = \theta_{n-1} + \frac{\pi}{2}.$$

   Принцип: Последовательность изменений элементов системы подчиняется установленной закономерности.

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4. **Закон однозначного построения (ЗМ4):**
   Каждый элемент системы может быть полностью определён по известным параметрам.
   Формулировка:

   $$\text{Если } F(n) \text{ и } \theta_n \text{ известны, то } P_n = (F(n) \cdot \cos(\theta_n),\ F(n) \cdot \sin(\theta_n)).$$

   Принцип: Каждый объект или событие имеет определённые, однозначные характеристики.

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5. **Закон уникальности (ЗМ5):**
   Разные элементы системы не могут быть одинаковыми при уникальных входных данных.
   Формулировка:

   $$\text{Если } n \neq m, \text{ то } P_n \neq P_m.$$

   Принцип: Уникальные входные параметры приводят к уникальным результатам.

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6. **Закон непрерывности построения (ЗМ6):**
   Последовательное применение правил приводит к непрерывному и логически связанному результату.
   Формулировка:

   $$\text{Если } P_0, P_1, \ldots, P_{n-1} \text{ построеныпоправилам, то } P_n \text{ продолжаетспираль.}$$

   Принцип: Логическая последовательность действий гарантирует непрерывность и целостность процесса.

Итоговое утверждение:

Законы правильного мышления $\text{ЗМ1} - \text{ЗМ6}$ обеспечивают строгость, логическую непротиворечивость и однозначность рассуждений, применимых как к математическим объектам, так и к любым другим системам, подчиняющимся строгим правилам.

Reason = (true * Sense) + argument.
argument != 0
Reasoning n =(Truth n−1 · Logic n−1)+(Truth n−2 · Logic n−2)+Argument n
Reasoning n = Conclusion n−1+Conclusion n−2+Argument n

n = step of Reasoning
Conclusion0=1, Conclusion1=2 Argument=1 for all n≥2n .

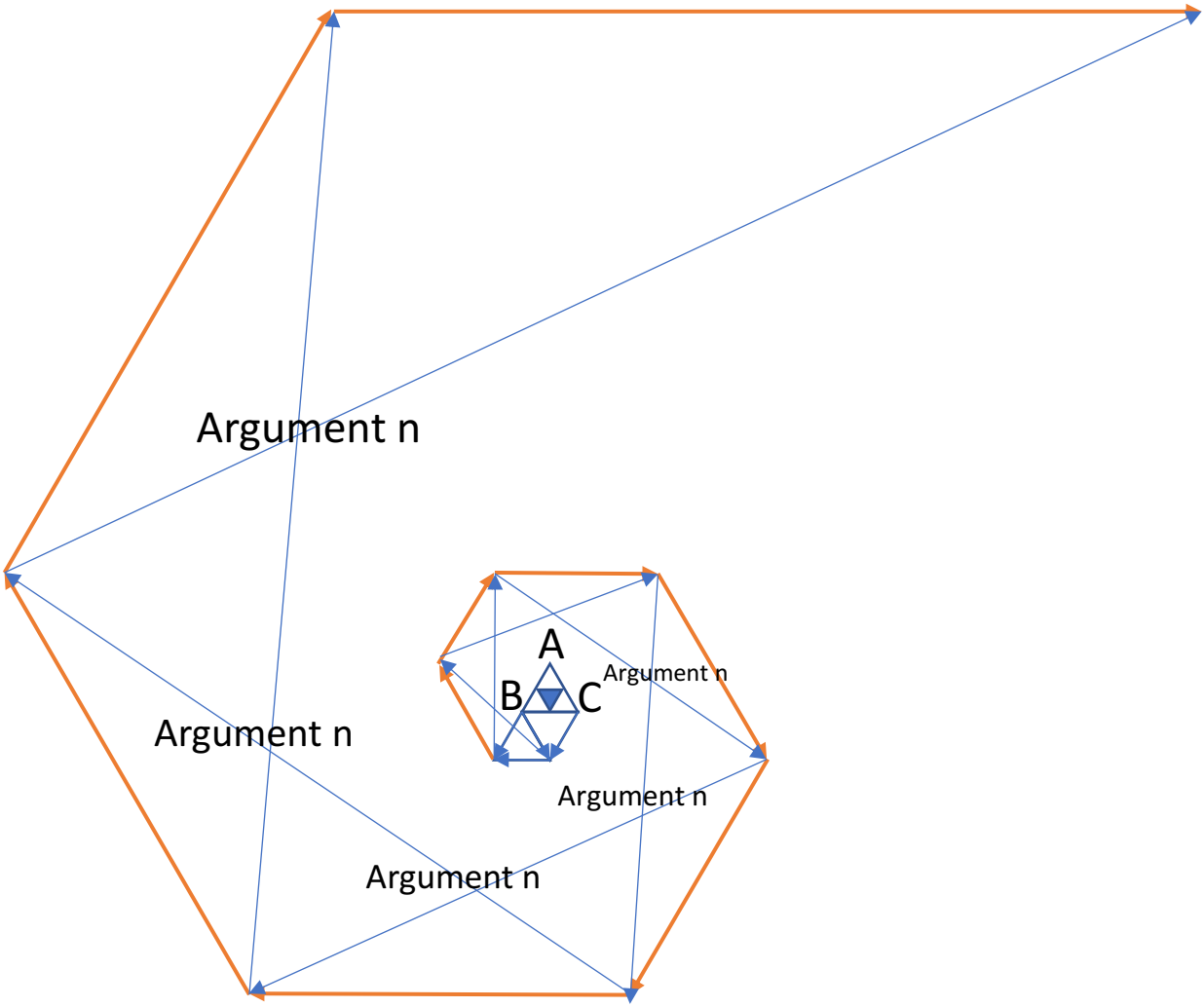
+ Aristotle: A conclusion is drawn from at least two premises.

Ψυχοτρον: The Paradox of Psychiatry that Requires Resolution: Can Something Exist That Cannot Exist?

Τρον - делать, Ψυχο - Душа, Ментальность.
Τρον - Creation, Ψυχο - Soul, Mentality.

ΧΡ∴ΩΝ
Федорченко Михаил Валерьевич

The spiral of reasoning construction



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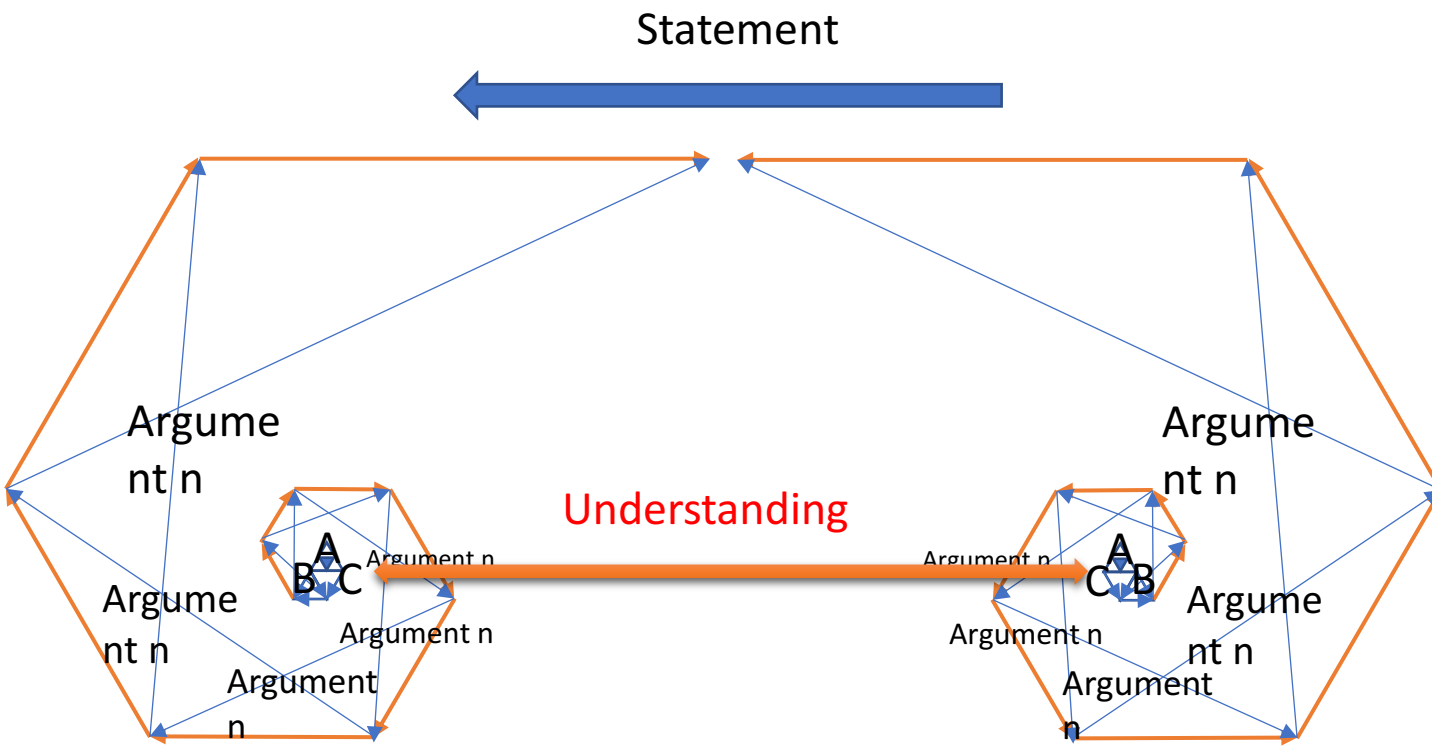
The spiral of reasoning construction



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constructing a spiral of reasoning

12 Rules for Building an Argumentation Spiral:

1. **Identifying the Starting Point**
Begin with a clear definition of the central idea or hypothesis (point A). This is the basis for the entire structure of the argument.

2. **Multiple Arguments**
At each stage of the argument (B, C, and so on) there should be several independent reasons to support the central idea.

3. **Coherence and Structure**
Each new argument is logically connected to the previous ones, expanding and deepening the argument.

4. **Centered Connection**
All arguments should be connected to the main thesis, while maintaining an overall focus on the central hypothesis.

5. **Hierarchical Arguments**
Arguments are organized by levels of importance or significance, creating a pyramidal structure.

6. **Reasonableness at Each Stage**
Each argument should be supported by evidence or references to avoid logical gaps.

7. **Moving to New Levels**
The spiral structure implies that at each turn a new dimension or complication of the topic is introduced.

8. **Repetition with Development**
Arguments from previous levels can be reused, but with the addition of new data for strength.

9. **Backchecking Logic**
Return to previous levels regularly to check their consistency with new data.

10. **Visualizing Connections**
Use graphical representations (as in the figure) to clearly show the relationship between arguments.

11. **Flexibility and Adjustment**
If new arguments contradict old ones, the structure must be revised to maintain the integrity of the reasoning.

12. **Completing the Spiral**
The final statement or conclusion should unite all arguments into a single, logically complete construction.

To represent the described rules for constructing a spiral of argumentation in the form of logical formulas, one can use the basic symbols of logic: $A, B, C, \dots$ — assertions (hypotheses or arguments), $\Rightarrow$ — implication, $\land$ — logical "and", $\lor$ — logical "or", $\neg$ — negation.

12 rules in logical formulas:

1. **Starting point identification**
The central hypothesis A exists:
$$
A \neq \emptyset
$$

2. **Argument multiplicity**
For any statement A there is a set of arguments $\{B_1, B_2, \dots, B_n\}$:
$$
A \Rightarrow (B_1 \land B_2 \land \dots \land B_n)
$$

3. **Sequence and structure**
If B_i supports A, then each subsequent hypothesis C_j is based on the previous ones:
$$
(B_i \Rightarrow A) \land (C_j \Rightarrow B_i)
$$

4. **Centered relationship**
Each argument X necessarily supports the central statement A:
$$
X \Rightarrow A
$$

5. **Hierarchy of arguments**
If $B_1, B_2, \dots, B_n$ are arguments, then there is an order of their significance:
$$
B_1 \succ B_2 \succ \dots \succ B_n
$$

6. **Validity at each stage**
For any argument B_i there is at least one proof P:
$$
B_i \Rightarrow \exists P_i \quad \text{(P is a proof)}
$$

7. **Transition to new levels**
If level B is completed, then a new set of statements C appears:
$$
\forall B_i \, \exists C_j \quad (C_j \Rightarrow B_i)
$$

8. **Repetition with development**
If an argument B is used at a new level C, it must be supplemented with a new aspect Δ:
$$
(B \land \Delta) \Rightarrow C
$$

9. **Backward check of logic**
Each new argument C_j must be consistent with the previous ones:
$$
(C_j \land \neg B_i) \Rightarrow \text{Contradiction}
$$

10. **Visualization of connections**
There is a set of logical connections L, where each argument X is connected to A:
$$
L = \{(X_1 \Rightarrow A), (X_2 \Rightarrow A), \dots\}
$$

11. **Flexibility and adjustment**
If a contradiction $\neg A$ appears, the structure must be revised:
$$
(\neg A \lor \neg B_i) \Rightarrow \text{Reconstruction}
$$

12. **Completion of the spiral**
The final conclusion Z unites all previous levels:
$$
Z \Leftrightarrow (A \land B_1 \land B_2 \land \dots \land C_n)
$$

These formulas express the logic of constructing arguments in the form of strict mathematical relationships.

Uncertainty Reduction: Transitions should reduce the amount of uncertainty or contention.

Use of intermediate steps: The spiral demonstrates the importance of sequential reasoning.

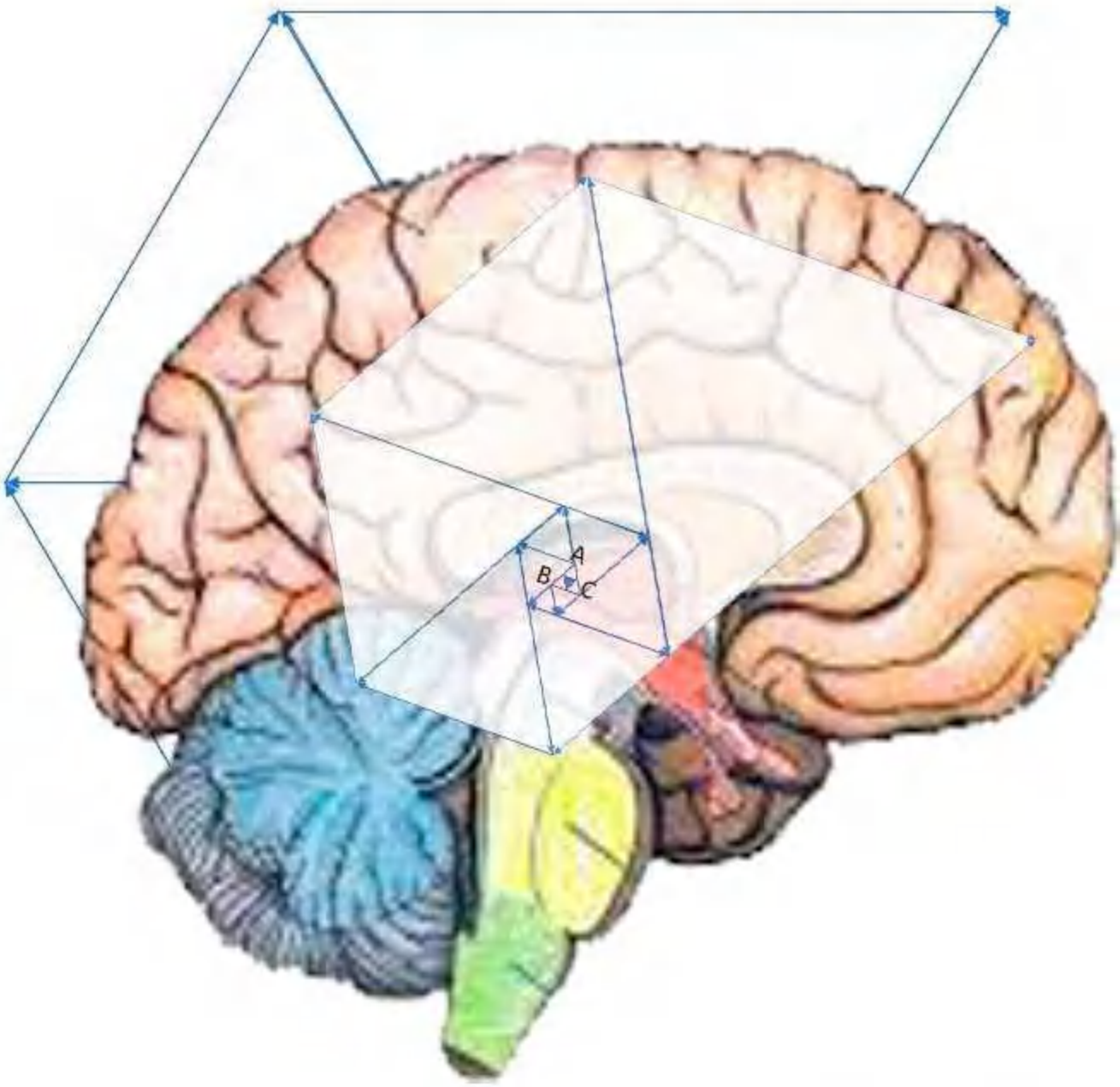
Changes in direction: The direction of reasoning has different directions (from center to periphery and from periphery to center) should have clear rules.

1. **Uncertainty Reduction**:
$$
\forall x \in \text{Arguments}, \; \exists y \in \text{Conclusions} : x \rightarrow y \; \text{and} \; \text{Uncertainty}(y) < \text{Uncertainty}(x)
$$
(Each transition from argument x to conclusion y reduces uncertainty.)

2. **Use of intermediate steps**:
$$
\forall (x, y) \in \text{Arguments}, \; \exists z : x \rightarrow z \rightarrow y
$$
(There must be an intermediate step z between any two arguments x and y.)

3. **Change of direction**:
$$
\forall x, y \in \text{Path}, \; \text{Direction}(x \rightarrow y) \in \{\text{center} \rightarrow \text{periphery}, \text{periphery} \rightarrow \text{center}\}
$$
(Each direction must be strictly defined as moving from the center to the periphery or vice versa.)

The spiral of reasoning construction



A natural form of thinking

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