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Abstract. The purpose of this paper is to propose and construct a complete breadth-first automatic programming language for writing code, especially in the natural language of Chinese characters, based on the assumption that there is a thinking language in the human brain. The method is as follows: First, a philosophical hypothesis of a five-ring world view and methodology is proposed based on the five cosmology and categorization. Secondly, based on superstring idea and thermodynamics, a unified scientific hypothesis covering encyclopedia entries is proposed. Thirdly, a thinking language model of thermodynamic cold/temperature sensory neuron system is proposed and constructed for human brain science. The result is that a general design framework of the principle machine of the automatic interpretation machine that supports the mutual understanding of pictures and texts of any 256 Chinese characters is constructed to be verified. The significance lies in: it is expected that this model can be constructed as the underlying general programming language supporting ASCII code, and the general design of the general CPU chip architecture.

Keywords: System Analysis, Formal Understanding, Formalization Automatic, Cognitive Computing, Interpreter Machine, Automatic Programming Language.

1 Introduction

The purpose of this paper is to propose and construct a complete breadth-first automatic programming language for writing code, especially in the natural language of Chinese characters, based on the assumption that there is a thinking language in the human brain.

Although all programming languages in the world have realized the automation of programs, etc., there is no automation in the process of writing code, and automatic conversion between different programming languages cannot be realized, let alone programming in human natural language. The key technical difficulty is that whether it is breadth-first or depth-first, it is all oriented to human natural language. The

research object has not achieved completeness in the order of magnitude/size and complexity, especially human natural language is a convention, it is impossible to build a complete theoretical model, therefore, can only be probabilistic. However, it is agreed that the thinking of the human brain is logically self-consistent and consistent with observation. Furthermore, it means that there is no deep understanding of human brain science, and no discovery of the nature and existence of natural language in human brain science.

2 Method

The method is as follows: First, a philosophical hypothesis of a five-ring world view and methodology is proposed based on the five cosmology and categorization. Secondly, based on superstring idea and thermodynamics, a unified scientific hypothesis covering encyclopedia entries is proposed. Thirdly, a thinking language model of thermodynamic cold/temperature sensory neuron system is proposed and constructed for human brain science.

Theoretical analysis： The influence of temperature on organisms is decisive. The determinacy of human cold/warm neurons, especially the determination of molecules in the nucleus, is expressed and reasoned. The above-mentioned effects on vision, hearing, smell, taste, touch, and electromagnetism how to be unified? Philosophers in "consciousness" [1~6] want to clarify the "inevitability"[7~19], they believe that human beings have a common conceptual schema at the deepest level. Scientists firmly believe in the invariance of matter in motion [20~28]. The only electrical signal with a clear meaning used by the nervous system is the action potential, it seems that the entire electrical signal system consists of only one letter and is only modulated by its firing frequency, and whether it is controlled by thermodynamics, the temperature/cold sensory neuron system? Is it the prototype of J. Fodor's language of thinking? If so, the living body cannot be confirmed by the scientific experiment of the dead body, then scientific hypothesis and calculation become a possibility.

2.1 Thought experiment

Suppose there is a person with visual and hearing disabilities. He is naked in a closed and empty room. There is a large stove and a large pile of ice cubes at the two ends of the room. He can neither see nor hear the ice cubes to the sound of the stove burning, etc. I wonder if he can take advantage and avoid disadvantages? The answer is yes, he will use the skin as a measuring tool to gradually and smoothly move on the ground plane to a position suitable for body temperature. This thought experiment illustrates the deterministic and irreducible nature of the cold/warm nervous system, in fact cold neurons feel smoother and more directional.

2.2 Hypothesis basis

First of all, the temperature sensory cell nervous system is realized through the change of $37\sim 40°C$ when thinking about problems, that is, the unconscious artificial

control and the exchange of energy and information between temperature, pressure and volume are realized. Secondly, inspired by the Turing test, J. Fodor believes that there is a mechanical binary mechanical language in the human brain, that is, the language of thinking, and the processing mechanism of the central dogma of small molecules and macromolecules in the nucleus is in line with the hypothesis of thinking language. Third, electrical synapses and chemical synapses in vertebrate synapses cooperate to complete information transmission, in which axons and their electrical synapses are responsible for the one-to-one correspondence of which neuron is close to the post-synapse of many neurons membranes, while chemical synapses release chemical transmitters. Finally, a neuron is an integrator, thermodynamically expressing that it is receiving information at all times, processing it, sorting it, and deciding whether to respond (excited) or silent (inhibited) to the information, especially after the response, correspondingly, establish an association relationship with the next layer of neurons.

2.3 Purpose and Key Technical Difficulties of Computer Science Experiments

The natural editing of gene segments on single strands of RNA is regular. The purpose of our artificial calculation experiment is to try to construct a third-party self-controllable RNA single-strand. The key technical difficulty is to try to assign a meaningful symbol to each nucleotide gene fragment, and to try to find out the small molecules through the analysis of the symbol system, the linearity of the language of thinking. Similarly, this further lays the foundation for building a third-party linear neural network system.

3 Result

The result is that a general design framework of the principle machine of the automatic interpretation machine that supports the mutual understanding of pictures and texts of any 256 Chinese characters is constructed to be verified.

Computational Science Experiments:

3.1 Materials for Computational Experiments and Logic Experiments

The material for molecular-scale scientific experiments is about 3 billion base pairs of human beings, and the RNA single strand has nearly 20,000 base pairs of different lengths and is ranked by position. The existing classification, sorting, naming, etc. are nonlinear and have no assignment meaning. The materials for the third-party test are the entries and their associations in modern Chinese, and relevant entries are selected from the Encyclopedia of China *(3)*, the Encyclopedia Britannica *(16th edition)* and the national subject classification and code standards. The consensus concept term entry is cross-language, that is, regardless of the reading and writing of languages such as Chinese and English, the connotation of the concept term entry remains unchanged, especially characters, as pictographs, have a morphological structure and logic, so it is reasonable to assign it as the underlying logic, especially as Z or ASCII.

3.2 Static Mathematical Model of Completeness Width

Firstly, based on Euclidean geometric parameters, a given two-dimensional surface of molecules and cells that simulates the neuron cell cycle is constructed. Secondly, the points, lines, surfaces of the molecular or the cell scale in the two-dimensional plane are given meanings and names through the entries and their associations. Third, introduce super-string /M-theory ideas or hyper-loop theory, abstract small molecules as line segments (open strings) of a given scale, and abstract macromolecules as line loops (closed strings) with a given scale. The relational relationship is abstracted into a line-surface (membrane) at a given scale, thus constructing a philosophical hypothesis model. Fourth, based on Hilbert space and topological geometry, electromagnetic parameters are introduced to construct a static electromagnetic field in the human brain, describing the mechanism of electrical synapses leading to the next postsynaptic. Finally, the thermodynamic equation of state is introduced to construct the dimension, especially the thermal equilibrium state is used to measure the functions expressing and reasoning the above-mentioned changes and their differences.

Fig. 1. The Common Concept Schema Architecture of Ontology, Epistemology and Methodology of the Five Rings Worldview.

Figure *1a* shows the consensus functions of the rational left brain and perceptual right brain of the human brain, and five sub-regions of sensory, motor, auditory, visual, and joint, and neuroscientists predict that the functional regions may be sub-divided into thousands. Figure *1b* is an abstract representation of the geometry based

on Figure *1a*. Figure *1c* is the abstract five-ring world view after the insight of this paper, and the expression of mutual understanding between pictures/graphs and texts, especially it is proposed/constructed that there are the circular arrangement/order frame of the canonical logic description of three layers, five rings and thirteen points. Figure *1d* constructs all the entries and their contextual relationships in the data dictionary in the knowledge base into a long paper tape with different widths according to linear causal relationship, and constructs it as the core technology of the retrieval tool - grid inversion document.

3.3 Abstract Model Machine of Human Brain Science

Turing machines, NLP, brain-like computing, etc. do not understand data. This model machine builds premise/intermediate/boundary conditions to form a conformal conceptual schema architecture for fully inductive reasoning.

Introduction: It has a limited square array covering brain information and words. The square array is composed of regular paper tapes with different widths of a given order of magnitude, and is organically divided into a given small square, each small square. It consists of four right angles and each right angle has ***n*** colors, and ***n*** regular sorting.

Basic idea: use machines to simulate the language of human thinking and behavior, especially the representation process of neurons and neural closed loops of mathematical operations.

Working principle: twelve-tuple $W=\{w,Q,\sum,\Gamma,\delta, C, q0,qaccept,qreject,q1,q2,q3\}$;

Problem solving: Compared with the seven-tuple $\{Q, \Sigma, \Gamma, \delta,q0,qaccept,qreject\}$ of the Turing machine, the width w of constructing in the character table W, the text symbol C, and the premise $q1$, middle $q2$, boundary $q3$ condition are increased by five symbols, so that it can understand any of the orientations Q.

Example (because it belongs to the full Chinese information processing method, it is not suitable for presentation in pure English paper, only a brief introduction here. Interested judges or readers can browse our display templates during the conference exchange):

Select an abstract of a paper as an example to confirm.

For the sake of simplicity, we only experiment with the lexical entries composed of two syllables Chinese characters. **Statistics after sorting**: There are *46* and *92* words in two-character words. In addition to the general participles according to philology and linguistics, our definitions are as follows: *(1)* The term entry of the concept term - the relationship mainly composed of adjectives, verbs, and quantifiers, a total of *31*. *(2)* Concept term entry.There are 14 abstract concepts mainly composed of nouns and articles of a class or a set of classes. **Analysis**: For simplicity, especially to highlight the continuous conferred value of cognitive entities in this model, we only reveal the linear causal relationship behind the linearity of the term entry of the class concept. Sorted by this model, there are *17* words in total, including titles, conceptual terms, and two-character words in keywords.

The original sorting includes the position number of the entry in this model, and the current sorting according to the position number of this model. *(1)* Original

sorting (preprocessing); *(2)* Current sorting (string assignment). On the basis of Fig. 1 , an overview of the microscopic application of its combined example can be seen from Fig. 2 . Figure *2a* firstly shows the category intuitive paradigm of this project, which consists of *42* conceptual terms arranged in an orderly circle around the entity, that is, "thing", and furthermore, the "thing" as an entity is composed of the spin and revolution logic of the *42* conceptual terms Self-consistency matches observation. After reaching *42*4*, a system is formed, and so on, and finally a complete theoretical model covering millions of conceptual terms is formed, and then a general-purpose CPU-oriented interpretation/compilation principle machine, assembly language, and fully customized EDA and general-purpose CPU are constructed. chip architecture, etc. Figure *2b* shows the algorithmic path for layer *4*.

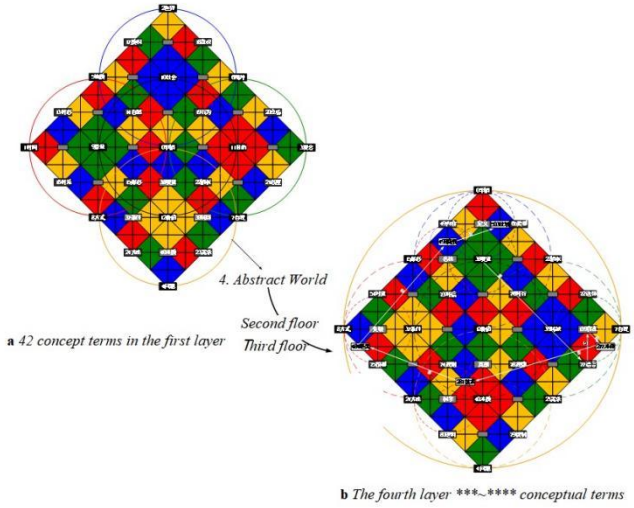

Fig. 2. The five-ring world views category theory hologram with its application examples.

Table 1. Short form of automatic programming of circular .

Phenomenon 38: Short form of automatic programming of circular				
	Objective world	Image world	Subjective world	Abstract world
objectivity	15 Morphology	49 Content	38 Phenomenon	73 Credible
figurative	49 contents	0 events	65 types	38 phenomena
subjectivity	38 phenomena	65 types	22 conditions	76 feasible
abstraction	73 Credible	38 Phenomenal	76 Feasible	12 Value
Notes: The start symbol, end symbol, and underline are the generating function, that is, the zero point position of the x, y, and z coordinates; it indicates the position of the boundary z; the instruction arrow				

From the perspective of contemporary pure mathematics, the combination of object (O) and relation (R) is the category (C). Therefore, we can establish the following formula:

$$O^{x} + R^{y} \leq C^{z} \tag{1}$$

In the above formula, the concept, theory and method of circular logarithm introduced by the corresponding author of this paper (introduced in another article).

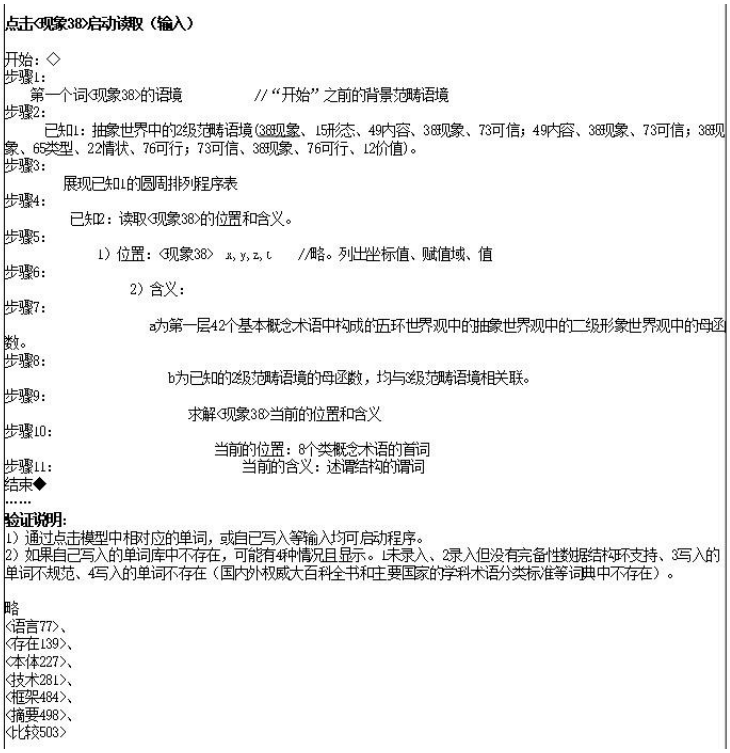

Fig. 3. The automatic programming and automatic interpretation context framework of the class concept terminology of this project all in Chinese (Pure Chinese programming example).

From Figure 3, it can be seen that this project has achieved 1/256/65536 completeness, that is, the linear circular arrangement/order of the concept-like terms in the background covers the limit requirement of 65536 two Chinese character entries.

4 Conclusion

Please The significance lies in: it is expected that this model can be constructed as the underlying general programming language supporting ASCII code, and the general design of the general CPU chip architecture.

Both depth-first and breadth-first face completeness problems.

The depth-first completeness problem refers to the current Google database with more than 10 billion documents, etc. To achieve short sentence retrieval composed of three entries means to achieve the power of tens of billions of documents through function brute force. Even connected computers cannot solve the problem, so only data centers can be built all over the world and only local nonlinear data mining can be performed.

The completeness problem of breadth-first refers to the fact that the current subject classification and knowledge classification cannot achieve a linear causal ordering of more than 100 entries, but there are nearly one million conceptual terms and nearly 100 million professional terms in various disciplines. There is a solution only if the linear causal ordering of conceptual terms exceeds one thousand or even ten thousand, that is, by inducting and refining one million conceptual terms into one hundred thousand cubes.

We built an automatic interpretation principle machine for mutual understanding of pictures/graphs and texts covering the width of 256 Chinese characters. It consists of 1024 right-angle lattices, which exceeds the upper limit of linear causal sorting of hundreds of entries in the current world. It can automatically explain the mutual understanding of pictures and texts for any article with less than 256 characters, such as the novelty and completeness of the three-dimensional morphological structure logic language for paper abstracts, patent abstracts, and children's texts.

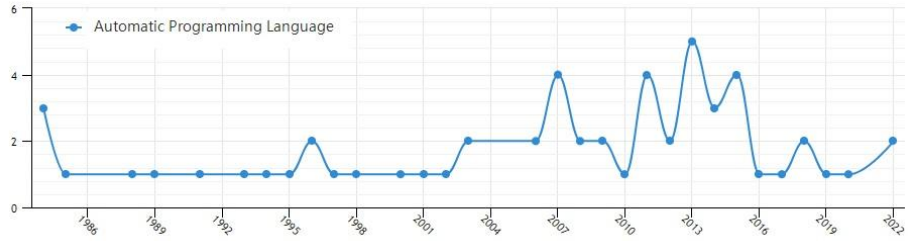

Fig. 4. Automatic Programming Language

As can be seen from Figure 4, the development trend of automated programming language exploration or research.Combined with some references it is evident.[19-30]

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