Establishment of a Dialectical Logic Symbol System: Inspired by Hegel's Logic and Buddhist Philosophy

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Abstract

This paper presents an original dialectical logic symbol system designed to transcend the limitations of traditional logical symbols in capturing subjectivity, qualitative aspects, and contradictions inherent in the human mind. By introducing new symbols, such as “ŏ” (being) and “⌀” (nothing), and arranging them based on principles of symmetry, the system’s operations capture complex dialectical relationships essential to both Hegelian philosophy and Buddhist thought. The operations of this system are primarily structured around the categories found in Hegel’s Logic, and it allows users to incorporate their own subjectivity into the logical processes, opening up new possibilities in the philosophy of subjectivity. This symbol system also has the potential to help us explore fundamental questions of language and to precisely describe processes of consciousness transformation through symbols. This form of logic offers a new, irreducible tool for qualitative methods, and it will spark a new philosophical reflection on its relationship with traditional logic and mathematical symbols.

User Guide

This little tool is created to help you find harmony with yourself and to explore your true self in a playful, meaningful way with friends. Words you input into this system can transform into real self-knowledge. Therefore, if your applications or inferences lean toward denial or destruction, I strongly encourage you to save your word—to protect and honor the knowledge of your true self—and recalculate with a mindset of curiosity and care.

Keywords: dialectical logic, Hegelian philosophy, symbolic logic, Buddhist thought, consciousness

This paper introduces a dialectical logic symbol system, initially published in my 2020 book, “When Language Ceases: The Symbols of Hegel’s Logic and Buddhology” (Lin Chia Jen, 2020). Originally expressed through Chinese characters, this system has been refined into more concise Greek symbols for this study. Despite dialectics’ longstanding applications in metaphysics, religion, and psychology, it has yet to attain a formal logical framework. My approach is deeply informed by Descartes’ emphasis on clarity and distinctness in truth, as outlined in Meditations (Descartes, 2008)[1], alongside Hegel’s sophisticated terminology and philosophical articulation of dialectical methods (Hegel, 1812), as well as the structured dialectical presentation found in the Buddhist Agamas (Buddhist Agamas, n.d.) according to my understanding of it.

In my dialectical logic symbol system, I introduced novel logical symbols, including “ὅ (being),” “⌀ (nothing),” “ἐ̇ (self),” and “· (abstraction or concretization),” along with the “copula,” symbolized as “≡ (affirmation).” Unlike traditional propositional logic, where the copula is an implicit, non-operational semantic link, “≡ affirmation” here functions as an explicit logical operator. This shift signifies that dialectical operations target what Hegel referred to as “the Absolute” (Hegel, 1975), rather than mere “propositions.” Within this

[1] When Descartes explored the necessity of knowledge through methodological doubt, he also delved into how the existence of the object of knowledge affects this necessity. This inspired me to more firmly incorporate the concept of being into the logical symbols.

framework, inserted or input items (e.g., p or x) lack a subject-predicate structure, freeing them from the truth-value dynamics of subject-predicate correspondence, thereby underscoring the term "the Absolute."

Since p or x do not represent propositions, they lack traditional epistemic significance tied to truth-value or "reality and property relationships." A p neither encapsulates a copula and subject nor functions referentially like a predicate; rather, its value is inherent. Given the current scope of dialectical insights, such self-valuable items p or x can best be described as possessing "spiritual value."

I encourage readers to abandon the habit of expecting words to have specific referents and to consider language's impact on the mind, such as the "spiritual value" conveyed by poetry. Unlike poetic and literary language, which retains aspects of "referentiality," "functionality," and "correspondence," the symbol system I introduce—using p or x—completely detaches from these aspects. The symbols p or x, possessing spiritual value, do not refer to anything specific; their function and significance lie solely within the symbols themselves, free from the ambiguities of traditional literary expressions. This perspective aligns with Heidegger's view that "language is the house of Being" (Heidegger, 1971), positing language as an intermediary that constructs meaning. While this view emphasizes language's role in shaping reality, it lacks the precision necessary to fully capture how language, like the laws of the physical world, shapes the real.

To more precisely touch this "spiritual value," the items p or x in this dialectical logic symbol system must be regarded as possessing complete intrinsic spiritual value. Such spiritual effects, derived from symbols, are commonly observed in religious contexts, as in the case of "mantras." Mantras are often intended to produce an immediate spiritual effect, guiding the mind toward a specific state. However, a "mantra" still retains a certain "image" and thus includes a "correspondence relationship," which keeps it within the framework of propositional logic. Given that my logic system diverges from propositional logic, I design it to use symbol operations to entirely break from this correspondence relationship, as exemplified by transforming the copula "is" into the symbol $\equiv$.

This spiritual value is further manifested in another crucial characteristic of this logical system: it is entirely "self-referential." Within the logical operations of this dialectical logic symbol system, any item—whether x, y, or p—retains its intrinsic value regardless of changes in its logical position or combinations with other items. This "self-referential" quality enables users of the system to "insert their self" into the symbols. Such self-reference partially restores "intentionality," distinct from the functional external correspondence typical of propositional logic. Instead, it aligns with the form of "intentionality" associated with consciousness in Hegel's Phenomenology of Spirit (Hegel, 1977) and Husserl's phenomenology (Husserl, 2001). This phenomenological perspective investigates how the intentionality of consciousness is structured in acts of reference and its interaction within the transformation process between consciousness and its object.

Lastly, intentionality, in a more abstract sense, has ***directionality***. Thus, users of these symbols can observe the direction of categorical operations, which may assist you in locating your intended target. The target may clearly be the "self ($\dot{\varepsilon}$)," though it is not necessarily limited to this in practice. In my symbol system, the "self ($\dot{\varepsilon}$)" is frequently applied within the categories of "relationships of substantiality," "relationship of causality," "the category of reciprocity," and "the category of The Notion." This arrangement reflects a necessity grounded in deep philosophical reflection; respecting this design is essential to ensure user's directional coherence within the system, although there is flexibility in practical application. With this understanding, one can see how the system allows users to "insert their self." This design offers a unique value distinct from previous logical systems, serving as a valuable tool for knowledge fundamentally rooted in "introspection."

Method

In the creation of this dialectical logic symbol system, the primary focus was on the selection of symbols, their arrangement, and the method of operation. For symbol selection, I primarily referenced Hegel's Logic (Hegel, 1975) and Buddhist scriptures, as both are fundamentally dialectical in nature, and their structural systems share significant similarities. This allowed me to cross-reference and select appropriate symbols for dialectical logic.

Hegel's Logic integrates metaphysics and addresses the traditional philosophical question of "being," while Buddhism similarly considers "subject" as a logical object. Therefore, I chose the Greek symbol ὅ (from ὄν) to represent "being," and the symbol ἐ (from ἐγώ) to represent "subject." The introduction of these two symbols is key to distinguishing dialectical logic from other types of logic. As part of the logical system, I also chose ¬ to represent "negation," following traditional logic.

To make this symbol system capable of effectively describing Hegelian philosophy, Buddhist philosophy, and subjective, introspective idealist philosophy in general, I placed particular emphasis on geometric symmetry in the arrangement of symbols. For example, in the structure ¬·ὅ~x·¬, the ~ symbol separates two symmetric states: "negation abstracted" and "negation concretized." This symmetry captures important structures in idealism, such as "subject/object" or "consciousness/object."

Finally, since dialectics is fundamentally a logic of transformation, I incorporated the principle of change into the operations. For example, I defined that ŏ can be transformed into ⌀ (nothing), and the various structures of dialectical logic follow symmetrical patterns of calculation. In the calculation of the "category of substantiality," for instance, the transformation of logical expressions shows a self-returning symmetry in the form of "ἐ→ἐ· →ἐ·x→ἐ·→ἐ."

As this is a completely original symbolic design, its effectiveness still awaits verification through practical application and experience by readers. This process, unlike applied sciences, cannot be validated by experimental data.

Basic Symbols of Dialectics

For ease of writing, I have selected some symbols to replace the original Chinese characters. These symbols are pre-existing, but their arrangement and operational methods are my creations for the purposes of dialectics. The following are the substitute symbols used in the dialectical logic symbol system, which comprises six basic symbols[2]:

ἐ represents "self"

[2] In my original Chinese work, the Chinese symbols for 'ἐ, ≡, ŏ, ⌀, ¬, ·' are respectively '我, 是, 有, 無, 不, 的'.

≡ represents “affirmation”

ő represents “being”

⌀ represents “nothing”

¬ represents “negation”

· represents “abstraction or concretization”

Basic Concepts and Mastery

Firstly, within this dialectical logic symbol system, an item that can be inserted, such as an “x”, must be considered as “absolute,” “non-composite,” and “indivisible.”

Secondly, this x is not a proposition, meaning it does not inherently contain the copula “is” like the P in propositional logic. Nor is this x a predicate or an individual in predicate logic. In predicate logic, P(x) already implies “is,” and also encompasses the meaning of “having.” In dialectical logic, it is crucial to distinctly separate these aspects.

Thirdly, the dialectical logic symbol system I have developed differs from previous logical and mathematical symbol systems in that those systems could not incorporate the symbol user “I” into their operations; however, this revised symbol system fully allows the inclusion of the symbol user “I” in its calculations, meaning this system is “completely self-referential.”

Fourthly, regarding this x, we can “abstract” it to become “x·”; alternatively, it can be “concretized” to become “·x”. Ultimately, we can affirm it to become ≡x.

The Introduction and Importance of the Symbol ‘·’

The ‘·’ symbol represents “abstraction” or “concretization.” For an item x, we can abstract it to become x· (placed to the left of “·”); or it can be concretized to become ·x (placed to the right of “·”). Here, x· signifies that the function of X in thought is suppressed; whereas ·x indicates that the function of x in thought is expressed.

The Introduction and Importance of the Symbols ŏ and ⌀

ŏ signifies “being,” while ⌀ represents “nothing.” The introduction of these two symbols is for computing “becoming,” and their mutual transformation is closely related to the negation ¬. Additionally, ŏ can represent “immediacy” or “mediacy,” whereas ⌀ can be used to eliminate items within a logical formula. Here are the two axioms for using these two symbols:

Axiom One

ŏ

Explanation: ŏ can be freely written on paper or in thought.

Axiom Two

∅

Explanation: ∅ can be freely written on paper or in thought.

The Introduction of Double Negation

Following the introduction of the symbol "·," we can now discuss the critically important concept of double negation in dialectical logic. The commonly referred to "negation of negation" can be expressed as ¬·¬, which means that after negation ¬ is abstracted to' ¬·', it then concretizes back to ¬. This represents what Hegel referred to as "self-return" (Hegel, 1975). There is a familiar certainty, that the negation of negation is indeed an affirmation. This principle is acknowledged in the dialectical logic symbol system, and its certainty is represented by the following self-evident symbol transformations:

Operation Rule One: Equivalence Transformation Rule of ≡, ¬·¬ and ε̇·ε̇

≡

¬·¬

or

¬·¬

≡

Also

ε̇·ε̇

≡

or

≡

ἐ·ἐ

The dialectical logic symbols use line breaks to represent transformations between logical formulas, showcasing the transformation from the double negation ¬·¬ to the affirmation symbol ≡ and the affirmation symbol ≡ back to double negation ¬·¬.

Operation Rule Two: Equivalence Transformation Rule between ǒ and ⌀

ǒ≡

or

≡ǒ

⌀

Also

⌀≡

or

≡⌀

ǒ

The above sets of symbol transformations illustrate the relationship between affirmation ≡ and being ǒ and nothing ⌀. This relationship implies that if affirmation ≡ is removed from

≡ǒ or ≡⌀, then being ǒ will transform into nothing ⌀, and nothing ⌀ will transform into being ǒ.

Further expansion on the relationship between being ǒ and nothing ⌀:

ǒ¬·¬

≡ǒ

⌀

Based on the transformation relationship between double negation ¬·¬ and affirmation ≡, we have the above three formulas' transformation. With these transformations, we can formally enter the operational process of dialectical logic symbols.

Dialectical Logic Operations Require the Decomposition of Double Negation

We introduce a symbol ~, which lacks specific logical meaning, to decompose double negation into the following formula:

¬·~·¬

The symbol ~ divides the abstraction of negation ¬· and the concretization of negation ·¬ into left and right sides, thus generating two logical positions: the position between ·¬ and ~ is called the "first logic position," and the position between ¬· and ~ is called the "second logic position." These two logical positions can insert items or determinateness, such as ǒ, ⌀, x, y, a, etc. Now, we will represent this in the form of transformations between being ǒ and nothing ⌀.

Operation Rule Three: Relativity Conversion Rule

¬·ǒ~x·¬

¬·x~ǒ·¬

¬·x~⌀·¬

Explanation: When ǒ and item are in a relative position between the first and the second logic position, and there is no other item getting into this field of relativity during continuous transformations to destroy this relative position, then when this relativity is confirmed, the next logical formula must convert ǒ to ⌀, vice versa.

Entering the Doctrine of Being

In this paper, I will present categories structured according to Hegel's Encyclopaedia of the Philosophical Sciences in Outline, specifically the section on logic (Hegel, 1975). The reason for using Hegel's framework to organize the categories within this dialectical logic symbol system is that this order provides a reasonable structure. However, it is crucial to understand that I am not symbolizing Hegel's dialectic; rather, I am creating a general system of "dialectical symbols." These symbols possess their own operational functions, and any comparison to Hegel's language serves as an "interpretation" of the symbols. This "interpretation" is itself a process with operational meaning. Thus, readers should consider this "interpretation" as part of the "application or inference" of the symbol system.

However, from a comparative perspective, it is necessary to clarify two points: 1. The dialectical logic symbol system in this paper does not address the category of quantity, for reasons related to knowledge efficiency and independence. This system is independent of quantitative thinking, and any quantitative operations using this system are considered part of the "reasoning and application" phase. 2. This system fundamentally incorporates my understanding of Buddhism, which introduces a foundational attitudinal difference from Hegel's principles. This difference will be elaborated upon after the category of Notion.

A "category" is a cycle of thought and a unit with computing power. Some categories are simple, others are composite, and finally the circularity of many categories can achieve closure in the operational sense.We now delve into the "The Doctrine of Being" category from Hegel's shorter logic, initiating a particularization process where negation ¬ dominates the thought, returning to itself, starting with "The Doctrine of Being."

Axiom Two and Operation Rule Two

⌀

≡ŏ

¬·¬ŏ

¬·∼ŏ·¬ID

The above is the true one-way beginning of dialectics. To understand this paragraph, you must first understand the operation of ID and my subsequent discussion of NB(ε̇), so you can skip here, and use Operation Rules to start directly from the following BC.

The Category of Becoming

BC

¬·∼ŏ·¬

¬·ŏ∼·¬

¬·⌀∼·¬

¬·∼⌀·¬

¬·~ǒ·¬

The above logical formulas constitute a cycle of formulas, which is referred to as a category. This category represents Hegel's category of becoming (Hegel, 1975). The cycle proceeds as follows: (a) ǒ is first abstracted by negation into ǒ·¬, thereby suppressing ǒ in thought; (b) ǒ then abstracts the negation ¬, concretizing into ¬·ǒ; (c) As the first two formulas complete the self-return of ǒ and ¬, they implicitly contain the transformation between ¬·¬ and ≡, and based on the transformation relationship between ≡ǒ and ⌀, reach the third logical formula ¬·⌀~·¬. Thus, we arrive at the first category: becoming, abbreviated as the function BC.

BC - DB – (Categories)' continuum

¬·~ǒ·¬

¬·ǒ~·¬ ← x*Category (n)

The above is the real mechanism of DB(x) formation. In terms of understanding, you should skip it first and come back to it later.

The Category of Determinate Being

DB(x)

¬·ǒ~x·¬

¬·x~ǒ·¬

¬·x~⌀·¬

¬·⌀~·¬

¬·ǒ~·¬

We now insert an item x, aside from ǒ, into the first logic position, resulting in the category of determinate being, abbreviated as DB (). DB(x) represents the function of inserting x into DB, encompassing five transformations of logical formulas. The part involving ǒ has already been explained in BC, and the process x undergoes is the same as that of ǒ. In the first two logical formulas ¬·ǒ~x·¬ and ¬·x~ǒ·¬, x and ¬ undergo mutual abstraction and concretization. Noteworthy are the transformations in the third and fourth formulas. When ¬·x~⌀·¬ transforms into ¬·⌀~·¬, x is eliminated by ⌀, leaving only ǒ in the fifth formula.

In BC, I mentioned that the cycle of formulas constitutes a category. However, determinate being, unlike BC, is not a category that can return to itself, because the item x we insert is eliminated by ⌀ in the fourth formula. If we continue with the logical formulas of DB, it will return to BC. Thus, DB is a category that requires the insertion of other items such as x, y, a, etc., to return to itself.

Within ¬·ő~x·¬, we have filled the first and second logic positions, forming an entirety within the being-in-self stage. The meaning of the entirety lies in forming a concrete determinateness, unlike in BC, where the absence of items in the first and second logic positions allows the negation ¬ to predominantly function in thought. In DB(x), we cannot merely negate in thought because the negation ¬ is abstracted by ő, nor can we simply treat ő as the absolute, because the necessary property x, united with ő, is abstracted by ¬. The meaning of the entirety is that it is erroneous to correctly analyze any items constituting the entirety, as any analysis or division would inevitably be incorrect.

From a linguistic perspective, ¬·ő~x·¬ can be translated as 'x's being,' while ¬·x~ő·¬ can be translated as 'the existing x.' Here, x oscillates between functioning as a noun and an adjective, but it is not yet a fully determined noun. The true noun will only emerge when we enter the category of matter. However, based on the principle that the entirety in DB(x) cannot be divided, although these translations may be used individually in practice, from the perspective of operations in dialectical logic symbols, such naturally isolated language use is always 'one-sided.

The above two categories represent the categories of The Doctrine of Being, in which the symbol ő primarily represents "immediacy." Next, we will enter the category of "The Doctrine of Essence" within the dialectical logic symbol system.

The Category of Essence: Reflective Categories

The Category of Identity

ID(x)

x¬·ǒ~·¬

ǒ¬·x~·¬ID

or

ǒ¬·x~·¬

x¬·ǒ~·¬ID

We now enter the category of essence, within which ǒ can represent both "mediacy" and "immediacy." The first point of focus is the third logic position, which is the position to the left of ¬·. An item can only be inserted to the left of ¬· once an item has been placed in the second logic position. The significance of the third logic position is that it is not subject to the mutual abstraction and concretization relative to the negation ¬, since the negation ¬ has already been abstracted by the item in the second logic position. The first category we encounter in the doctrine of essence is the category of identity, abbreviated as ID (). We can insert an x, formatted as ID(x). The function of ID(x) is to allow free interchange between items in the second and third logic positions across two lines of logical formulas, as seen in the interchange between x¬·ǒ∼·¬ and ǒ¬·x∼·¬. This interchange does not cause the being ǒ to transform into nothing ∅. Finally, I define ID () as an operator, used as follows:

Operation Rule Four: ID

x¬·y∼∅·¬

y¬·x∼∅·¬ ID

On the *right* side of the second logical formula, ID is indicated, showing that the structure y¬·x∼∅·¬ is the result of applying ID as *an operator* to x¬·y∼∅·¬.

The Category of Opposition

OPP(x)

x¬·ǒ∼·¬

¬·x∼ǒ·¬

¬·ǒ∼x·¬

ǒ¬·x∼·¬

The category of opposition involves moving items located in the third and second logic positions backward in sequence to the second and first logic positions, respectively, and then performing the first two logical formulas of DB (), which interchange the second and first logic positions. However, the next step is not to proceed to the third formula of DB (), but rather to move the interchanged items back to the third and second logic positions. In the operation of the dialectical logic symbol system, a determinateness, such as x, as long as it does not continuously occupy the second and first logic position in relation to ⌀ within three consecutive logical formulas, ǒ will not be transformed into ⌀.

Axiom One

ǒ

Axiom Three: ADD

ǒ¬·x~y·¬

The above is the actual formation process of TIF (x, y). The mechanism of Axiom Three: ADD will be introduced soon, so the understanding order and the real order will be merged here.

The Category of The Thing Itself

TIF (x, y)

ǒ¬·x~y·¬

ŏ¬·y~x·¬

(fi) *TIF (): ŏ*(1) ∨ ŏ*(2)

In the category of the thing itself, we have generated a second item, y, thus filling the first to third logic positions. TIF () itself is also an operator, so we have the following fifth Operation Rule:

Operation Rule Five: TIF

ŏ¬·x~y·¬

ŏ¬·y~x·¬TIF

Explanation: For a logical formula with the third logic position as ŏ and the first two logic positions filled with items, we can use TIF on it to swap the items on the first logic position and the second logic position.

According to the previous interpretation of DB (), filling the first and second logic positions forms an indivisible whole[3], so ŏ in the third logic position is not affected by the negation ¬ and can be conceived as absolutely or independently itself. Thus, we have the following two Axioms:

[3] Axiom three: ADD is a simple and important logical breakthrough which I think I get inspiration from numerous talks of Jiddu Krishnamurti (1895-1986), a great teacher of his time.

Axiom Three: **ADD**

ő

ő¬·y~x·¬

Explanation: For ő, we can add a structure in which the first and the second logic positions are filled with two items, such as ¬·y~x·¬, in the next logical formula without changing its meaning.

Axiom Four: SIMPT

ő¬·x~y·¬

ő

Explanation: For a logical formula in which the third logic position is ő, like ő¬·y~x·¬, we can remove the structure in which the first two logic positions are filled with two items in the next logical formula, such as ¬·y~ x·¬ without changing its meaning.

We can further interpret this from TIF (): when our mind generates a thought, and the mind does not acknowledge that this thought has been affirmed or negated but appears purely naturally, the category used by the mind is the thing itself, TIF (). This category represents what we often refer to as "thing," which is typically concrete and not represented as a proposition that can be judged true or false.

In ǒ¬·x~y·¬ and ǒ¬·y~x·¬, we can designate x and y as representing “immediacy” and “mediacy” respectively. For example, we might set x as immediacy and y as mediation, then in the entirety of ǒ¬·x~y·¬, the thing itself or the thing is considered immediate, and in ǒ¬·y~x·¬, it is considered mediated. However, since these two logical formulas can freely transform, ǒ in the TIF () category is “simultaneously mediated and immediate.”

This capability for free transformation indicates “contradiction,” which is a frequent occurrence in our consciousness and thinking. The free interchange between ǒ¬·y~x·¬ and ǒ¬·x~y·¬ makes “the thing” seem as if it has been defined, yet because neither the first nor the second logic positions can be accurately analyzed, only ǒ in the third logic position can be transformed, thus making “the thing” appear as purely undefined.

In fact, since only the third logic position can reasonably transform an “item,” and since any item in dialectical logic must be placed within the first to fourth logic positions, we must acknowledge that any item of dialectical logic “itself” comes from this transformation in the third logic position.

I will now show how to freely generate free items from this system:

Axiom one

ǒ

ADD

ǒ¬·y~x·¬

TIF (y, x)

ǒ¬·y~x·¬TIF

ǒ¬·x~y·¬

x¬·ǒ~y·¬ ID → x

Operation Rule six: Arrow →

x¬·ǒ~y·¬ID →x

x·¬·y~ǒ·¬

…

(fi)*Category (): x*Category (1)

Explanation: The use of "→" signifies that when the continuum of thought progresses to a logical formula like x¬·ǒ~y·¬, where both the first and second logic positions are filled, ***the third logic position*** can transform into a free item. For instance, x¬·ǒ~y·¬ →x, and this free item should be noted in the free item section below the final logical formula of that continuum of thought as ***x*Category (1)***.

The Category of Matter

MA(x)

x¬·ǒ~y·¬ID → x

x·¬·y~ǒ·¬

x¬·y~ø·¬ → x

x·¬·ø~·¬

x¬·ǒ~·¬

(fi)*MA (): x* MA (1) ∨ x* MA (3)

This x, initially positioned in the third logic position, can transform into a free x and also enter into the second logical formula x·¬·y~ǒ·¬. The logical formulas displayed above are known as matter, abbreviated in function form as MA (). The process from x¬·ǒ~y·¬ transforming into x·¬·y~ǒ·¬ is distinct from the categories in the Doctrine of Being where negation ¬ serves as the axis of self-return; here, it is x that can independently transform from the third logic position that serves as the axis of self-return. Thus, the transformation of the first three logical formulas can be simplified as "x→x·→x," where x first abstracts into x· and then concretizes back into x, representing x's self-return.

At the same time, the changes in the first and second logic positions are considered as resulting from changes in x. In the first logical formula, the possibility of x's mediacy is based on the abstraction of y through the use of negation ¬ in thought. If I define x as consciousness and y as sensation, in the first logical formula x¬·ő~y·¬, the concreteness of consciousness through its identity relationship with ő in the third logical position, highlights the mediacy of ő within the mind. Meanwhile, y merges with ő in the first logical position to become one, with y itself being suppressed by negation and ő's mediacy being expressed through x. This prevents ő's immediacy from being realized here."

By the time we reach x·¬·y~ő·¬, x abstracts into x·, such that x demonstrates its opposition to y, or rather, after y undergoes concretization through abstracting negation ¬, it becomes mutually exclusive with the concrete x. Since the structure of ¬·y~ő·¬ is concrete, I like to say that x¬·ő~y·¬ represents x "contacting" with ¬·ő~y·¬[4], and x·¬·y~ő·¬ represents x "distancing" from ¬·y~ő·¬.

When we reach x¬·y~⌀·¬, x concretizes or returns to itself, transforming ő into ⌀. This represents the identical relationship of x and y in the second and third logic positions, which cannot be framed by ő, set as either "immediacy" or "mediacy," but should be unrestricted. Originally, I defined consciousness as mediacy and sensation as immediacy, overall, a clear determinateness. However, when I unify consciousness and sensation, it is no longer appropriate to define them using the immediate or mediated ő.

[4]In the twelve links of dependent origination in Buddhism, one link is 'contact,' which I believe is very suitable to represent the concreteness of dialectical thinking in this context.

By the time we reach x·¬·⌀∼·¬, x, not being truly nothing, abstracts into x·, indicating that x does not come into contact with ⌀ in the second and third logic positions.

Finally, we arrive at x¬·ὄ∼·¬, where x· once again returns to x, and ⌀ transforms back into ὄ. However, at this time, the first logic position is empty, without any item inserted, which could either lead x into the pure category of identity or necessitate the insertion of a free item from elsewhere. It is important to note that in the MA(x) category, the free item x initially transformed cannot be inserted into x¬·ὄ∼·¬, as this dialectical logic symbol system only allows negation ¬ and self ἐ to appear twice within the same logical formula. Thus, MA(x) is a category with a free item that cannot insert itself and requires insertion into other categories.

From a linguistic perspective, x¬·ὄ∼y·¬ can be translated as 'x possessing the quality of y (with ὄ functioning as 'possessing').' However, based on the explanation of the analyzability of the entirety mentioned above, what can truly be translated is only the single x. So, although this structure is a definition structure familiar to us in language, at this stage of the dialectical operation, since x is not yet a determinateness that is both being-in-self and being-for-self, the only thing that can truly be translated is the single noun x. The true definition structure will only emerge when we enter the category of actuality.

BC - DB – (Categories)’ continuum

¬·~ǒ·¬

¬·ǒ~·¬ ← x*MA (1)

The above returns to the discussion of DB (x). Note that if x*MA (1) is used to form DB (x), the free items column is (fi)*MA (): None.

Summary of Operators and the Continuum of Thought

I define this type of logical formulas within the category that can generate free items using the arrow →, each item can only be generated once. If there are different items, for example, formulas that can generate x, y, ≡, ≡x, ≡y, ≡ἐ, etc., each of them can only be generated once.

However, if we view the entire system of categories as a continuum—meaning that we can always connect the first and last logical formulas of one category to another in some way—the rule that a specific item can only be generated once within a category will apply to the entire continuum of the dialectical logic symbol system.

Once a continuum of categories has determined its direction based on transformation rules and has generated all possible items, that continuum becomes a definite set of thoughts or knowledge. To continue this continuum, we then enter the inference phase of the dialectical logic symbol system, which involves the process of moving free items between categories.

Moreover, the → used to generate free items interacts with the use of ID within a continuum, creating uncertainty before and after the application of ID, due to ID altering the items in the third logical position. Since the third logical position is the only place in the first three categories that can transform free items, this results in uncertainty regarding what can be transformed. This uncertainty results in a structural incompleteness of free items from one of the logical formulas before or after the use of ID. I will explain this with the second category of substantial relationships, SID1 ():

SID1(x, y)

≡ő¬·y~x·¬ →≡ő

ἐ≡ő¬·x~y·¬ →ἐ≡

ἐ≡x¬·ő~y·¬ID →ἐ≡x

The above are the first three logical formulas of SID1(x, y), where the third logical formula indicates that it is the result of using ID on the second logical formula. Without using

ID, the second logical formula would have been able to fully transform into ἐ≡ὄ. However, due to the use of ID, it can only transform into ἐ≡. So, we have the fifth axiom:

Axiom Five: ID Integrity Constraint Axiom

"When ID is applied to a logical formula, it imposes a structural integrity constraint on one of the free items produced by the → transformation in the logical formulas before and after the use of ID."

All the categories that can be used as operators have now been introduced. Now, I will introduce two ways to organize the free items generated within a continuum. The first type of free items can be found to form part of each other's structure in the collection of transformed free items, which I abbreviate as (fi). The second type cannot, and I call them non-composite free items, abbreviated as (ncfi). For example, if the set of items that can be transformed within the entire continuum are ἐ≡, ἐ≡x, ≡x, ≡ὄ, and ἐ·≡x, it is clear that ≡ὄ and ἐ·≡x do not form part of the structure of the other members. After this comparison, we can organize their free items in the categories and continuum as follows (where the free item is placed to the left of *, and the number in parentheses next to the category name indicates the logical formula from which it is transformed):

(fi) * SID1(): ε̇≡* SID1(2) ∧ ε̇≡x* SID1(3) ∧≡x* SID1(8)

(ncfi) * SID1(): ≡ő* SID1(1) ∧ ε̇· ≡x*SID1(4)

The Category of Form

FM (x, y)

x¬·ő~y·¬ID → x

x·¬·y~ő·¬

x¬·y~⌀·¬

y¬·x~⌀·¬ ID → y

y·¬·⌀~·¬

y¬·ő~·¬

(ncfi)*FM (): x*FM (1) ∧ y*FM (4)

We now consider other possibilities within MA (x, y). Originally, in the third logical formula of MA (x, y), x¬·y~⌀·¬, x and y are in a relationship of identity in the second and third logic positions, so we can use ID to exchange the positions of x and y to become y¬·x~⌀·¬. To demonstrate the transformation relationship with the line above x·¬·y~ő·¬, we should mark ID on y¬·x~⌀·¬, making it y¬·x~⌀·¬ ID.

y¬·x~∅·¬ ID indicates that in the unrestricted relationship of ∅, y swaps places with x according to ID, and manifests "itself" in the third logic position. According to my earlier setting, y represents sensation, and x represents consciousness. This swap of y and x reflects the mystical nature of dialectical logic. Sensation is inherently immediate, and the manifestation of consciousness is based on negating and abstracting the immediate sensation, yet sensation y is the necessary item that fills the logical positions, meaning that consciousness x can only manifest itself because it denies the immediate nature of sensation. Therefore, in y¬·x~∅·¬ ID, the unrestricted nature of ∅ makes it impossible to distinguish between the determinateness of consciousness and sensation.

Since y¬·x~∅·¬ ID also fills all logic positions, y in the third logic position can also be freely transformed, hence marked as y¬·x~∅·¬ ID → y. Therefore, the category of form is a category that has two free items.

Note that because the last logical formula y¬·ŏ~·¬ lacks the first logic position, and the item currently at the third logic position is different from that in the first logical formula, we can insert the x initially transformed into the last formula:

The Category of Force

F (x, y)

FM (x, y)

x¬·ǒ~y·¬ → x

x·¬·y~ǒ·¬

x¬·y~⌀·¬

y¬·x~⌀·¬ID → y

y·¬·⌀~·¬

y¬·ǒ~·¬ ← x*F (1)

FM (y, x)

y¬·ǒ~x·¬ → y

y·¬·x~ǒ·¬

y¬·x~⌀·¬

x¬·y~⌀·¬ID → x

x·¬·⌀~·¬

x¬·ǒ~·¬ ← y*F (7)

(ncfi)*F (): y*F (4) ∧ x*F (10)

The category described above is formed when x is inserted into y¬·ǒ~·¬, establishing a new category called 'force,' abbreviated in function form as F (). The category of force is composed of two categories of form, FM (x, y) and FM (y, x), thus it is a 'composite category.' The structure of F() involves inserting the free item x from the category of form

FM (x, y) into its last logical formula, thereby creating another category of form FM (y, x), where the free item y of this form can then be inserted into its own last logical formula, forming FM(x,y) in an endless cycle. This cyclic insertion of x or y into the last logical formula of the category of form represents the self-returning motion of x or y.

In summary, the category of force still contains two items that are not inserted into themselves; therefore, these two free items can still be inserted into other categories.

Axiom One

ǒ

Axiom Three

ǒ¬·x~y·¬TIF

ǒ¬·y~x·¬TIF

The above are two axioms that use Axiom One and Axiom Three to construct the following categories. The above ǒ¬·x~y·¬TIF and ǒ¬·y~x·¬TIF are both marked with TIF, which represents a kind of reversion.

The Category of Appearance

AP (y, x)

MA (y, x)

y¬·ő~x·¬ID→ y

y·¬·x~ő·¬

y¬·x~ø·¬

y·¬·ø~·¬

y¬·ő~·¬ID ← x*AP (8)

TIF (y, x)

ő¬·y~x·¬TIF

ő¬·x~y·¬TIF

MA (x, y)

x¬·ő~y·¬ID → x

x·¬·y~ő·¬

x¬·y~ø·¬

x·¬·ø~·¬

x¬·ő~·¬ ID ← y*AP (1)

(ncfi)*AP (): None

AP (x, y) is also a ***composite category*** that demonstrates the cyclicality of x and y, but it is composed of TIF () and MA (). The ***geometric symmetry*** of its cycle, if described simply, is: ***"x → ǒ → y → ǒ → x," or, actually no process*** at all.

AP (x, y) is a ***reversed*** category. This reversal is derived from TIF (y, x) itself and "→ y ← y*AP (1)" and "→ x ← x*AP (8)" express.

This process of x returning to itself in AP (x, y) differs from that in the category of force, as it needs to pass through the category of the thing. These two modes of self-return are significant for thought: the category of TIF can imaginably transform ǒ, and considering AP (x, y) where the free items transform as "x → ǒ → y → ǒ → x," but actually nothing can be transformed at all. Thus, when thought seeks to express ideas involving contradictions and uncertainties, we should employ the category of appearance, AP (); however, when thought intends to express a self-sufficient, automatic, and definite process of self-return, we should use the category of force, F ().

Before concluding the reflective categories of essence, I wish to introduce a special category, a variant of the category of matter, MA (x, y), which I call MA2().

Axiom One

ǒ

Axiom Three

ǒ¬·y~x·¬

y¬·ǒ~x·¬ID

Axiom Four

y

Axiom Three

y¬·x~ǒ·¬

MA2(y, x) or MA2(x, y)

y¬·x~ǒ·¬ → y

x¬·y~ǒ·¬ ID

x·¬·ǒ~y·¬

x¬·⌀~y·¬

x·¬·~⌀·¬

x¬·~ǒ·¬ ←y*MA2 (1)

x¬·y~ǒ·¬ → x

(ncfi)*MA2 (): None

Or

If you have MA (y, x) and MA (x, y) you can do it like following too:

MA (yx’5)

y¬·ǒ~·¬

OPP (y’1)

¬·y~ǒ·¬ ←x*MA (xy’1)

MA2(x, y) or MA2(y, x)

x¬·y~ǒ·¬

y¬·x~ǒ·¬ID

……

In the first two formulas of MA2’s category, y¬·x~ǒ·¬ and x¬·y~ǒ·¬, x and y are positioned in the second and third logic positions in a relationship of identity, while ǒ in the first logic position is abstracted by negation. This means that the ǒ representing immediacy or mediacy is initially suppressed, and the free interchangeability between x and y due to their identity allows their determinateness to permeate each other. A notable aspect of this category is the formula x¬·⌀~·¬, where x and ⌀ are in a relationship of identity.

Connecting reflective category —category of actuality: CRA ()

CRA (x, y)

x¬·y~ǒ·¬ → x

x·¬·ŏ~y·¬

x¬·⌀~y·¬

≡x¬·ŏ~y·¬ →≡x

(fi)*CRA (): x*CRA (1) ∧≡x* CRA (4)

The second category of matter also has a very important property; its first logical formula x¬·y~ŏ·¬ can be used as a bridge connecting the reflective categories of essence and the category of actuality. When the category of matter progresses to the third logical formula x¬·⌀~y·¬, adding an affirmation symbol ≡ in front transforms the ⌀ in the second logic position into ŏ, turning the entire formula into ≡x¬·ŏ~y·¬, which constitutes the complete structure of the category of actuality in the Doctrine of Essence.

Note: There are more linking formulas, but this introduction only covers this one, as it directly links to the category of actuality itself, rather than to the categories of possibility and contingency.

The Doctrine of Essence: The Category of Actuality

We have now explored how, within the reflective categories of the Doctrine of Essence, x and y returns to itself. Whether through the category of appearance or through the category of force, x and y become determinateness that simultaneously possesses both immediacy and mediacy in the cycle of logical formula. This totality of immediacy and mediacy brings thought into the crucial category of actuality within the Doctrine of Essence.

We know that double negation ¬·¬ equates to affirmation ≡. In previous categories of being and reflective categories of essence, the insertion of free items and their movement with ǒ and ⌀ were just intermediary determinateness of double negation ¬·¬. This is intermediary determinateness describes the particular process of thought where and how double negation ¬·¬ is transformed into affirmation ≡. However, true affirmation ≡ is not yet reached until the intermediary particular items x or y return to themselves through the categories of force or appearance.

In the DB () category of being determinate, ¬·x∼ǒ·¬ can neither analyze the certainty of negation ¬ nor the exact particularized nature of x, thus thought has not yet expressed affirmation ≡. Hegel refers to the particularized nature of x in the Doctrine of Being as being-in-self, not being-for-self (Hegel, 1975). However, when the reflective categories in the Doctrine of Essence allow x or y to return to themselves “for themselves” through the categories of force F () or appearance AP (), the particularized nature of x or y becomes being-for-self.

In x¬·ǒ~y·¬, thought can only transform an independent and free item x, represented as x¬·ǒ~y·¬ → x. Since ¬·ǒ~y·¬ cannot be understood as affirmation ≡, we cannot symbolically transform it into a truly being-for-self expression, which would be ≡x.

Now, to truly express a being-for-self particularized nature, we finally enter the category of actuality within the Doctrine of Essence, introducing the symbol of affirmation ≡. Here is the first logical formula of actuality itself, AC (x, y):

≡x¬·ǒ~y·¬ → ≡x

With the addition of the affirmation sign ≡, we gain an additional logic position to the left of the ≡ sign, termed "the fourth logic position". The item in the fourth logic position is "being-for-self", meaning the entire formula ≡x¬·ǒ~y·¬ can transform into ≡x, not just x. With the inclusion of the fourth logic position, x's range of movement within the structure is expanded. Here is the complete operation formula of the AC (x, y):

The Category of Actuality Itself

AC (x, y)

≡x¬·ǒ~y·¬ →≡x

x≡ǒ¬·y~·¬

x≡y¬·ǒ~·¬ID

≡x¬·y~ǒ·¬ →≡x

≡x·¬·y~∅·¬ →≡x·

≡x¬·∅~·¬

x≡¬·ǒ~·¬

≡x¬·ǒ~a·¬ →≡x

(fi)*AC (): ≡x*AC (1) ∨ ≡x*AC (4) ∨ ≡x*AC (8)

(ncfi)*AC (): ≡x·*AC (5)

The affirmation ≡ enhances our dialectical logic's ability to capture our mental processes. We can thus clearly think in our mind: what exactly is the present 'is ≡' connected to? Prior categories could not allow our mind to form this familiar 'is.' This seemingly obvious use of 'is' in common sense is, in fact, provided by the certainty of dialectical symbol's logical operations.

The certainty expressed by affirmation ≡ manifests in the complete operational formula of the AC (x, y) category of actuality itself. Notice especially the last logical formula ≡x¬·ǒ~a·¬, which structurally mirrors the first formula of the category, ≡x¬·ǒ~y·¬, unlike the reflective category where the last formula often lacks an item in the first logic position. This demonstrates that the AC (x, y) category of actuality itself can allow x to return to itself within its own operations.

Let us closely examine the process within these formulas. Initially, in ≡x¬·ǒ~y·¬, ǒ can represent mediacy or immediacy, and its identical relation with x or y as particular items in the third logical position marks whether ǒ's mediacy or immediacy is determined."

Secondly, when ≡x¬·ǒ~y·¬ transforms into x≡y¬·ǒ~·¬ID, x moves to the fourth logic position, while y and ǒ move to the second and third logic positions. This shows that x and the ID of y and ǒ are in a complete affirmative relationship. This formula represents a "complete affirmation" because no item in the first logic position is abstracted by negation ¬.

As x≡y¬·ǒ~·¬ transforms into ≡x¬·y~ǒ·¬, x's being-for-self particularized nature returns to the third logic position, where x and y are in a relationship of identity, and the ǒ's tendency of particularizing into immediacy or mediacy is abstracted or suppressed by negation ¬. This differs from the third logical formula of the reflective categories of essence where the identity of x and y is based on ⌀ being abstracted by negation.

From ≡x¬·y~ǒ·¬ to ≡x·¬·y~⌀·¬, and finally to ≡x¬·⌀~·¬, these three transformations represent x's "being-in-self" return within the category of actuality. In ≡x¬·⌀~·¬, note that x and ⌀ are in an identity relationship, representing x's being-in-self particularized nature identical with the nothing ⌀, unlike the reflective category where x is always identical with ǒ.

However, in the category of actuality, x is not merely being-in-self; it is also being-for-self, thus ≡x¬·⌀~·¬ must progress to x≡¬·ǒ~·¬.

In the final logical formula ≡x¬·ŏ~a·¬, x returns to the third logic position, and due to the movement of x shown in the previous formulas representing x's being-in-self and being-for-self return, a latent affirmation arises producing a new item 'a'. The importance of the category of actuality itself lies here, because unlike the reflective categories, which can only produce new items through the TIF () category, the category of actuality itself can produce a new item within its own logical necessity.

Finally, it is important to note that ≡x cannot be substituted into the first and second logic positions.

In the second logical formula of the AC (x, y) category of actuality, x≡y¬·ŏ~·¬, located at the third and fourth logical positions, x and y are in an identical relationship where we can apply ID. We will now explore the logical effects produced by the use of ID in the third and fourth logical positions, transforming x≡ŏ¬·y~·¬ into x≡y¬·ŏ~·¬ ID and y≡x¬·ŏ~·¬ ID. The first category formed by this free interchange of the third and fourth logical positions is called the first category of possibility, abbreviated as POS1().

Before entering the remaining categories of actualities there is a special category as follows:

Connect to Nothing

CON (x, y)

≡x¬·ǒ~y·¬ →≡

≡ǒ¬·x~y·¬ID→≡ǒ

SIMPT

≡ǒ

⌀

(fi)*CON (): ≡*CON (1) ∧ ≡ǒ*CON (2)

Category of Possibility 1

POS1(x, y)

≡x¬·ǒ~y·¬ →≡x

x≡ǒ¬·y~·¬

x≡y¬·ǒ~·¬ ID

y≡x¬·ǒ~·¬ ID

≡y¬·x~ǒ·¬ →≡y

≡y·¬·ǒ~x·¬ →≡y·

≡y¬·⌀~x·¬ →≡y

y≡¬·~∅·¬

≡y¬·~ǒ·¬

(fi)*POS1 (): ≡y* POS1 (5) ∨ ≡y* POS1 (7)

(ncfi)*POS1 ():≡x* POS1 (1) ∧ y·*POS1 (6)

Since at the first and second logical positions, ǒ and item need to be in a relationship of mutual concretization and abstraction that is rooted in negation previously for ǒ to transform into ∅, when ≡y¬·x~ǒ·¬ progresses to ≡y·¬·ǒ~x·¬, it does not transform ǒ into ∅ like in the AC(x,y) category of actuality. Following this, the last logical formula produced by the self-returning movement of y, being both being-in-itself and being-for-itself, ≡y¬·~ǒ·¬, creates a emptiness at the second logical position. This emptiness must be filled by a free item transformed from the reflective category.

Category of Possibility 2

POS2(x, y)

≡x¬·ǒ~y·¬ →≡x

x≡ǒ¬·y~·¬

x≡y¬·ǒ~·¬ ID

y≡x¬·ǒ~·¬ ID

y≡ǒ¬·x~·¬ ID

≡y¬·ǒ~x·¬ →≡y

≡y·¬·x~ǒ·¬ →≡y·

≡y¬·x~∅·¬ →≡y

y≡¬·∅~·¬

≡y¬·ǒ~·¬

(fi)*POS2 (): ≡y* POS2 (6) ∨ ≡y* POS2 (8)

(ncfi)*POS2 ():≡x* POS2 (1) ∧ ≡y·*POS2 (7)

The second category of possibility, abbreviated as POS2(), differs from POS1(x, y) by utilizing ID three times consecutively. This results in an emptiness occurring in the first logical position in the last logical expression, ≡y¬·ǒ~·¬. Similarly, this emptiness must be filled by a free item transformed from the reflective category.

Now, let us look at the last category of actuality, which is the category of contingency.

POS1(yx'9) ID ←x*POS1 (yx'1)

∴CONT (x, y)

The above is the mechanism whereby CONT (x, y) is formed by the self insertion of POS1 (y, x) itself, and there are various other ways.

Category of Contingency

CONT (x, y)

≡y¬·x~ǒ·¬ →≡

≡x¬·y~ǒ·¬ ID →≡x

x≡y¬·ǒ~·¬

x≡ǒ¬·y~·¬ID

≡x¬·ǒ~y·¬ →≡x

≡x·¬·ø~y·¬ →≡x·

≡x¬·~ø·¬

x≡¬·~ǒ·¬

≡x¬·b~ǒ·¬ →≡

≡b¬·x~ǒ·¬ID →≡b

(fi)*CONT (): [≡* CONT (1) ∨≡* CONT (9)] ∧ [≡x*CONT (2) ∨ ≡x*CONT (5)]

(ncfi) *CONT () ≡x·* CONT (6) ∧ ≡b* CONT (10)

The category of contingency, abbreviated as CONT (), begins with the second logical expression ≡x¬·y~ǒ·¬ which originates from the linkage formula in the category of matter:

CRA2(x, y)

x¬·ő~y·¬ → x

x·¬·x~ő·¬

x¬·y~⌀·¬ ID → x

≡x¬·y~ő·¬ →≡x

(fi)*CRA2(): [x* CRA2(1) ∨ x*CRA2(3)] ∧ ≡x*CRA2(4)

We observe that the CONT (x, y) category, similar to the AC (x, y), can generate a new item b in its final logical formula. However, the both being-in-self and being-for-self nature of x in the CONT (x, y) category is not as definitive as in the AC (x, y) category, which can only transform into ≡x, whereas the category of contingency can transform into ≡x, ≡y, or ≡b.

Now, let's review the entirety of the category of actuality. The category of actuality encompasses the first and second categories of possibility, POS1() and POS2(), and the category of contingency, CONT (). In these categories, the self-sufficient and self-determined items or terms change, such as transforming from ≡x to ≡y or ≡b, whereas the category of actuality itself, AC (), maintains the same item from start to finish, which is "≡x→≡x"—this represents "necessity." Let us continue to explore the category of actuality itself, AC (x, y):

AC (x, y)

≡x¬·ő~y·¬ →≡x

x≡ő¬·y~·¬

x≡y¬·ǒ~·¬ID

≡x¬·y~ǒ·¬ →≡x

≡x·¬·y~⌀·¬ →≡x·

≡x¬·⌀~·¬

x≡¬·ǒ~·¬

≡x¬·ǒ~a·¬ →≡x

(fi)*AC (): ≡x*AC (1) ∨ ≡x*AC (4) ∨ ≡x*AC (8)

(ncfi)*AC (): ≡x·*AC (5)

AC (x, a)

≡x¬·ǒ~a·¬→≡x

x≡ǒ¬·a~·¬

x≡a¬·ǒ~·¬ID

≡x¬·a~ǒ·¬→≡x

≡x·¬·a~⌀·¬→≡x·

≡x¬·⌀~·¬

x≡¬·ǒ~·¬

≡x¬·ǒ~c·¬→≡x

(fi)*AC (): ≡x*AC (1) ∨ ≡x*AC (4) ∨ ≡x*AC (8)

(ncfi)*AC (): ≡x·*AC (5)

We discover that if we extend the category of actuality to become AC (x, a), we continue to generate a new free item c, and the transformations still ultimately produce ≡x.

The first, second categories of possibility, POS1() and POS2(), and the category of contingency, CONT (), relative to the category of actuality itself AC (), add flexibility in changing the both being-in-self and being-for-self free items. However, the first and second categories of possibility may have a vacancy in the last logical expression, while the category of contingency inherently carries an uncertainty in thought.

From a linguistic perspective, ≡x¬·ǒ~y·¬ can be translated as '…is x possessing the quality of y (with ǒ functioning as "possessing").' At this stage of dialectical logic, since x has already acquired necessity within the category of actuality itself and is accompanied by ≡, we can acknowledge that the structure of the category of actuality can formally be translated into a definitional structure.

Now, as the mind seeks to preserve the necessity of the category of actuality itself, AC (x, y), while also maintaining the flexibility of self-sufficient and self-determined free items, it will continue to delve deeper into the “category of substantial relationships.”

Category of Substantial Relationships

In my dialectical symbol system, readers will experience for the first time "what it means to treat the self as a purely symbolic entity." In philosophical reflection, we understand the self as something pure, not as an experiential term used in everyday language to refer to this body or brain. For instance, Kant in his Critique of Pure Reason suggests that the "I think" accompanies all perceptions and thoughts, constituting the transcendental structure of the knowing subject (Kant, 1998). This not only provides the self with an innate, logical foundation but also positions the self transcendentally as the center that orchestrates cognitive activities. For Kant, the transcendental self bestows unity on experience, ensures the coherence and possibility of individual experiences, and actively interprets sensory data according to the laws of causality and substance. These philosophical reflections underscore the self's role as a purely functional and logical entity in human experience.

However, to date, no one has treated the self as a logical symbol. Considering the self's abstract qualities, such as invisibility and inaudibility, it seems plausible that it could be embraced as a logical symbol.

Category of Substantiality S ()

S (x, y)

≡x¬·ŏ~y·¬ →≡x

ė≡x¬·y~ŏ·¬ →ė≡x

ė·≡x¬·y~⌀·¬ →ė·≡x

ė·x≡¬·⌀~·¬

ė·≡x¬·ŏ~·¬

ė≡x¬·~ŏ·¬

≡x¬·a~ŏ·¬ →≡x

(fi)*S (): [≡x*S (1) ∨≡x*S2 (7)] ∧ ė≡x*S (2)

(ncfi)*S (): ė·≡x*S (3)

In this first category of substantiality, abbreviated as S (), we introduce the last symbol of the dialectical logic symbol system, the “self ė.” Like “being ŏ,” “self ė” is a purely logical symbol, pre-assigned to the fourth logic position. The difference between ė and ŏ is that (a) ŏ transforms into ⌀, while ė does not; (b) ŏ is regarded as “to be particularized as either immediacy or mediacy”; whereas ė is regarded as “both immediacy and mediacy, and even as indeterminate.”

The function of ė is to substantialize thought. Being pre-positioned in the fourth logical position, ė is the furthest symbol from the becoming that can occur between the first and second logical positions and the ID that can occur between the second and third logical positions. Thus, ἐ is regarded as a purely certain symbol, unaffected by other operators, allowing it to substantialize other items through its symbolic purity.”

S (x, y) begins with the same first logic formula as the category of actuality itself, ≡x¬·ὄ~y·¬. Its second logic ἐ≡x¬·y~ὄ·¬ formula involves adding ἐ to the fourth logic position, leading to an exchange between y and ὄ in the first and second logic positions.

In this transformation, thought considers all possible cases of ≡x¬·ὄ~y·¬ and eliminates these possibilities: 1. What ‘is ≡’ is only ‘is x.’ 2. Using ID to transform ≡x¬·ὄ~y·¬ into ≡ὄ¬·x~y·¬ID, expressing that what ‘is ≡’ is simply ‘≡,’ not particularity. 3. Finally, it recognizes that x’s nature cannot be fully expressed by ὄ in a state where only mediacy or immediacy is chosen. Therefore, thought discovers itself as a subject, ἐ: only as ἐ can x’s nature be fully revealed, or in other words, ἐ substantializes x. It must be noted, however, that since ἐ is a purely logical symbol, connecting it with x through affirmation ≡ does not add any content to x. ἐ merely ‘substantiates’ x through its logical significance of ‘both immediacy and mediacy, and even indeterminacy,’ so x in ἐ merely returns to its own truth. In ἐ≡x¬·y~ὄ·¬, x sublates its one-sided immediacy or mediacy to become ἐ.

When ἐ≡x¬·y~ő·¬ transforms into ἐ·≡x¬·y~⌀·¬, we can interpret it as follows: The ἐ should not be understand as "indeterminacy," hence "self ἐ" abstracts itself and transforms ő into ⌀, indicating that the self does not come into "undifferentiated unity with x and y."

When ἐ·≡x¬·y~⌀·¬ transforms into ἐ·x≡¬·⌀~·¬, we can interpret it as: ἐ is abstracted by x, or rather, ἐ concretizes itself within x. "ἐ·x" often appears in our conscious perception, very colloquially as "my x."

When ἐ·x≡¬·⌀~·¬ transforms into ἐ·≡x¬·ő~·¬, we can interpret it as: x leaves my representation and objectifies itself in the third logic position, transforming ⌀ into ő.

When ἐ·≡x¬·ő~·¬ transforms into ἐ≡x¬·~ő·¬, we can interpret it as: "self ἐ" re-concretizes, moving ő to the first logic position, indicating that "self ἐ" now potentially identifies with the concrete negation ¬.

Finally, when ἐ≡x¬·~ő·¬ transforms into ≡x¬·a~ő·¬, we interpret it as: Since "self ἐ" should be concrete, but now there is a emptiness in the second logic position, the present intentionality does not match the nature of ἐ, thus the self dissipates into a new objective actuality. In this logic formula, the self has experienced the movement of "ἐ→ἐ·→ἐ·x→ἐ·→ἐ," thus forming a potential affirmation, which transitions the entire movement of the self into a new determination or item 'a'.

Note: S () maintains that x acts as the both being-in-self and being-for-self determinateness of actuality.

Relationship of Substantiality SID1()

SID1(a, x)

≡ŏ¬·a∼x·¬ → ≡ŏ

ἐ≡ŏ¬·x∼a·¬ → ἐ≡

ἐ≡x¬·ŏ∼a·¬ID → ἐ≡x

ἐ·≡x¬·a∼ŏ·¬ → ἐ·≡x

ἐ·x≡¬·a∼⌀·¬

ἐ·≡x¬·⌀∼·¬

ἐ≡x¬·ŏ∼·¬

≡x¬·ŏ∼b·¬ → ≡x

(fi) * SID1(): ἐ≡* SID1(2) ∧ ἐ≡x* SID1(3) ∧ ≡x* SID1(8)

(ncfi) * SID1(): ≡ŏ* SID1(1) ∧ ἐ·≡x*SID1(4)

We now introduce another category within the substantial relationships, abbreviated with the symbol SID1() next to the S. More categories, such as SID2(), will be discussed subsequently. The initial formula of this category, ≡ŏ¬·a∼x·¬, differs from S () as it positions ŏ at the third logic position instead of an item.

As we proceed, I'll clarify the transformations of this category, though many patterns have been previously discussed. Therefore, major differences will be highlighted, with minor ones only briefly mentioned.

When transforming from ≡ő¬·a∼x·¬ to ἐ≡ő¬·x∼a·¬, consider that the truth of ő is not solely unified with a, as a represents either immediacy or mediacy, thus ő's truth must encompass the entirety, represented as ἐ. ἐ allows for the exchange of positions between x and a, unifying ő with x.

When ἐ≡ő¬·x∼a·¬ transforms to ἐ≡x¬·ő∼a·¬ID, it signifies that ἐ not only maintains the universality of ő but also particularizes itself, thus using ID to swap x with ő, turning itself into x.

The last formula of SID1(a, x), ≡x¬·ő∼b·¬, structurally mirrors the first formula of S () and the last formula of SID1() matches the structure of the first formula of S (). This characteristic will be crucial in the subsequent discussions on dialectical logic symbol system's classical continuum.

In summary, SID1(a, x) transforms the original first logical position item, x, into an item that embodies both being-in-self and being-for-self within the actuality categories. This transformation preserves 'necessity' while introducing a flexibility absent in the AC (). Moreover, SID1() retains sequential flexibility by shifting the initial item to the third logical position, where it becomes both being-in-self and being-for-self.

Finally, when examining the relationship between ἑ and ŏ, we find that they exist either within an affirmative relation, ἑ≡ŏ, or in a state of mutual abstraction as ἑ· and ŏ·. This state can be described as 'existing mutually within each other.'

Relationship of Substantiality SID2()

SID2(x, y)

≡x¬·ŏ~y·¬ → ≡x

ἑ≡x¬·y~ŏ·¬ → ἑ≡x

ἑ·≡x¬·y~⌀·¬ → ἑ·≡x

ἑ·x≡¬·⌀~·¬

ἑ·≡x¬·ŏ~·¬

ἑ≡x¬·ŏ~a·¬ →ἑ≡

ἑ≡ŏ¬·x~a·¬ID →ἑ≡ŏ

≡ŏ¬·a~x·¬ →≡ŏ

(fi)*SID2 (): ≡x* SID2(1) ∧ ἑ≡x* SID2(2) ∧ ἑ≡*SID2(6) ∧ ἑ≡ŏ* SID1(7) ∧≡ŏ* SID1(8)

(ncfi)*SID2 (): ἑ· ≡x*SID1(3)

SID2(x, y) utilizes the ID in the penultimate formula, ἑ≡ŏ¬·x~a·¬ID. Broadly, SID2(x,

y) affects the structure of actuality by downgrading the initially being-in-self and being-for-self item, here x, to the first logic position, allowing a new item, here a, to become the new being-in-self and being-for-self item.

Relationship of Substantiality S2()

S2(x, a)

≡x¬·a∼ǒ·¬ →≡x

ἐ≡x¬·ǒ∼a·¬ →ἐ≡x

ἐ·≡x¬·⌀∼a·¬ →ἐ·≡x

ἐ·x≡¬·∼⌀·¬

ἐ·≡x¬·∼ǒ·¬

ἐ≡x¬·ǒ∼·¬

≡x¬·ǒ∼d·¬ →≡x

(fi)*S2 (): [≡x*S2 (1) ∨≡x*S2 (7)] ∧ ἐ≡x*S2 (2)

(ncfi) *S2 (): ἐ·≡x*S2 (3)

S2() stands distinct from the previous three categories of substantiality: its first formula aligns with the initial formula of the CONT () category of contingency.

Category of Causality

CAUS (x, y)

≡x¬·ŏ~y·¬ →≡x

ἐ≡x¬·y~ŏ·¬

x≡ἐ¬·y~ŏ·¬ID →x≡

x≡y¬·ἐ~ŏ·¬ID →x≡y

x·≡y¬·ŏ~ἐ·¬

x·y≡¬·∅~ἐ·¬

x·≡y¬·~∅·¬

x≡y¬·~ŏ·¬

x≡¬·y~ŏ·¬ID

≡x¬·ŏ~y·¬ →≡x

(fi)*CAUS (): x≡*CAUS (3) [≡x*CAUS (1) ∨ ≡x*CAUS (10)] ∧ x≡y*CAUS (4)

(ncfi)CAUS (): x·≡y*CAUS (5)

Now, let's introduce the category of causality, abbreviated as CAUS (). For our thinking, causality generally represents a kind of "objective necessity." Therefore, the design of the logical operation formulas in the category of causality is intended to allow the subjective "self ἐ" to dissolve itself in the face of objective actuality. To achieve this, the thinking uses the technique of ID between the third and fourth logical positions.

When ≡x¬·ŏ~y·¬ transforms into ἐ≡x¬·y~ŏ·¬, the self ἐ acts on the actuality structure similar to the first two formulas of S(), but at this time, thinking determines that x is the true "substance ," hence it uses ID on ἐ≡x¬·y~ǒ·¬ to transform it into x≡ἐ¬·y~ǒ·¬. Then, thinking again applies ID to x≡ἐ¬·y~ǒ·¬, transforming it into x≡y¬·ἐ~ǒ·¬.

The operations of the subsequent logical formulas are all aimed at making the last logical formula return to the formula identical to the first logical formula ≡x¬·ǒ~y·¬. We can see that the five logical transformations of x≡y¬·ἐ~ǒ·¬, x·≡y¬·ǒ~ἐ·¬, x·y≡¬·⌀~ἐ·¬, x·≡y¬·~⌀·¬, and x≡y¬·~ǒ·¬ express the self-return movement of x at the level of both being-in-itself and being-for-itself as "x→x·→x·y→x·→x," and during "x·→x·y→x," the "self ἐ," abstracted by negation, is eliminated. In common language, "x·y" can be expressed as "the effect of x is y."

In summary, in CAUS (x, y), we can consider x as the "cause" and y as the "effect." Conversely, CAUS (y, x) sets y as the "cause" and x as the "effect."

When the following logical formulas of actualities occur between CAUS (x, y) and CAUS (y, x), x and y become "mutually causal":

MUCAC ()

≡x¬·ǒ~y·¬ID →≡

≡ǒ¬·x~y·¬ID →≡ǒ

≡ǒ¬·y~x·¬TIF →≡ǒ

≡y¬·ǒ~x·¬ID →≡

≡ǒ¬·y~x·¬ID →≡ǒ

≡ǒ¬·x~y·¬TIF →≡ǒ

≡x¬·ǒ~y·¬ID →≡

(fi)* MUCAC (x, y): [≡*MUCAC (1) ∨ ≡*MUCAC (4) ∨ ≡*MUCAC (7)] ∧ [≡ǒ*MUCAC (2) ∨ ≡ǒ *MUCAC (3) ∨ ≡ǒ *MUCAC (5) ∨ ≡ǒ *MUCAC (6)]

When x and y are thus set as "mutually causal" as above, thinking must enter the final category of the doctrine of essence, the category of reciprocity, abbreviated as RECI ().

The Category of Reciprocity

RECI (x, y)

ε̇≡x¬·ǒ~y·¬

ε̇≡ǒ¬·x~y·¬ ID

ε̇·≡ǒ¬·y~x·¬

ε̇·≡y¬·ǒ~x·¬ ID

ε̇≡y¬·x~ǒ·¬

ἐ≡x¬·y~ő·¬ ID

ἐ·≡x¬·ő~y·¬

ἐ·≡ő¬·x~y·¬ ID

ἐ≡ő¬·y~x·¬

ἐ≡y¬·ő~x·¬ ID

ἐ·≡y¬·x~ő·¬

ἐ·≡x¬·y~ő·¬ ID

ἐ≡x¬·ő~y·¬

(fi)* RECI (): ἐ≡*RECI () ∧ ἐ·≡*RECI ()

In the category of reciprocity, RECI (), the items x and y represent the most purified particularizations within the dialectical logic symbol system. This purity is because the interchanges of x, y, and ő across the first three logic positions in RECI (x, y) do not transform ő into ⌀. Instead, these movements synchronize perfectly with the "self ἐ" undergoing pure cyclic movements of "ἐ→ἐ·→ἐ." The interactions within RECI () are entirely cyclic and do not require the insertion of any items, thus lacking a definitive start or end point.

Using an example from Buddhist doctrine, where the third and fourth stages of the twelve links of dependent origination involve "consciousness" and "name-and-form" reciprocally defining each other, we define x as "consciousness" and y as "name-and-form" [5]for this illustration.

In this setup, ἐ≡x¬·ὄ~y·¬ can be interpreted as "the self is consciousness," with x maintaining a mediated particularization with ὄ, and y in the first logical position unites with ὄ in the second logical position as one, with y being negated and ὄ's mediacy represented by x. As the self being concrete in the form of ἐ, y·¬'s ¬ asserts a "negated certainty." However, the self ἐ should represent the totality of both immediate and mediate determinateness, thus driving the transformation to the next logic formula.

The second logic formula, ἐ≡ὄ¬·x~y·¬ ID, can be interpreted as "the self is pure being, returning to its totality," with x and y now unified as one in the first two logic positions, making the allocation of immediacy or mediacy between x and y indeterminate. The ID from x¬·ὄ to ὄ¬·x completes the shift from particularity to universality, resulting in a self that purely "≡is," rather than being merely a particular x or a universal ὄ.

In the third logic formula, ἐ·≡ὄ¬·y~x·¬, this can be interpreted as the self, in its totality, should not be seen as "undetermined." Thus, ἐ, while inherently a pure logical setting, also allows us as users of these symbols to insert "the self" of experiences into

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[5] In the twelve links of dependent origination in Buddhism, 'consciousness' and 'name-and-form' are key concepts of reciprocity.

systematic operations, representing “anything,” potentially our sensory data. Therefore, the self abstracts itself to avoid contact with this undetermined actuality and swaps positions between x and y, creating new possibilities. The notation ἐ· and x· indicates both the self and x are in an abstract state, implying they “exist mutually within each other.”

In the fourth logic formula, ἐ·≡y¬·ő~x·¬ ID, thought explicitly reveals that the determinateness which ἐ desires to distance itself from is **y** as the particular. On the contrary, **y** undergoes the completion of the transformation from 'ő¬·y to y¬·ő', thus finishing its process of concretization. Now, because ἐ· represents the self being suppressed within thought, the thought functions through the pure affirmation ≡, which is formed by the ID between y¬·ő and ő¬·y. However, true actuality is not such an abstract self, and pure affirmation ≡ must connect to a concrete item, progressing the thought to the next logic transformation.

By the fifth and sixth logic formulas, ἐ≡y¬·x~ő·¬ and ἐ≡x¬·y~ő·¬ ID, the self ἐ realizes that what limited the particularization of self was the logical symbol ő. Now, recognizing that only the self ἐ as a pure logical symbol that is representative at present and an infinite particularization truly exists, it concretizes y by swapping x and ő, into the concrete form of the self ἐ. The self now becomes the infinite particularity unified from x and y. Notably, in the sixth formula, the self ἐ again forms an affirmative relationship with x, but this time the relationship with x must manifest through y.

Upon reaching the fifth and sixth formulas, the self ἐ completes a "ἐ→ἐ·→ἐ" movement. Before this self-returning movement, x and the self were in an "affirmative" and "mutually existing" relationship, whereas y and the self were in a "different" and "negated certainty" relationship. Now, as x and y unify in the fifth and sixth logic transformations, and since y, in its concretized form, previously underwent "negated certainty" and abstracted negation, now attains substantiality through an affirmative relationship with the self, thus becoming the primary particularity.

The seventh and eighth logic formulas, ἐ· ≡x¬·ŏ~y·¬ and ἐ· ≡ŏ¬·x~y·¬ ID, transition into a relationship where x and the self are "different," while ἐ· and y· remain abstract, indicating they "exist mutually within each other." This suggests that within reciprocity, the logical positions of x and y have been exchanged.

By the ninth and tenth formulas, ἐ≡ŏ¬·y~x·¬ and ἐ≡y¬·ŏ~x·¬ ID, 'the self ἐ is name-form y,' and x, abstracted by negation, embodies the self involving 'negated certainty.'

The eleventh and twelfth formulas, ἐ· ≡y¬·x~ŏ·¬ and ἐ· ≡x¬·y~ŏ·¬ ID, echo the fifth and sixth in unifying x and y in the second and third logic positions. However, this time the self abstracts into ἐ·, avoiding contact with this consciousness and name-form unity, and ἐ·

and ŏ· remain in the same abstract state, denoting the self ἐ and being ŏ 'exist mutually within each other.' This indicates the self ἐ does not particularize itself as any aspect of this unified consciousness and name-form but remains a purely symbolic entity.

When the category of reciprocity develops to ἐ· ≡x¬·y~ŏ·¬ ID, it reaches the final formula, because the next formula returns to the starting point of ἐ≡x¬·ŏ~y·¬. This cycle of twelve formulas embodies the pure circularity of thought in the category of reciprocity. This cyclical category allows any mid-sequence logic formula to serve as the starting point, constructing RECI (y, x) reversely, achieving the same outcome.

In conclusion, the category of reciprocity, which Hegel describes as 'the nullity of distinctions' (Hegel, 1975, p. 218), embodies 'the notion'—a concept representing truth and freedom. This leads us into 'the category of the notion.'

The Category of The Notion

N(ἐ)

ἐ· ≡ŏ¬·x~y·¬ →ἐ· ≡ŏ

ἐ·ἐ≡ø¬·x~y·¬ →ἐ·ἐ≡ø

ἐ·ἐ≡ø¬·y~x·¬TIF →ἐ·ἐ≡ø

ἐ·ἐ≡∅¬·x~y·¬TIF →ἐ·ἐ≡∅

ἐ·ἐ≡¬·∅~y·¬ ID

ἐ· ≡ἐ¬·~∅·¬

ἐ≡ἐ¬·~ŏ·¬

ἐ≡ἐ·¬·ŏ~·¬

ἐ≡ἐ¬·∅~·¬

ἐ≡∅¬·~·¬ ID

ἐ¬·ŏ~·¬

(fi)*N (): ἐ· ≡ő* N (1) ∧ [ἐ·ἐ≡∅ * N (2) ∨ ἐ·ἐ≡∅ * N (3) ∨ ἐ·ἐ≡∅ * N (4)]

ID (ἐ)

ἐ¬·ŏ~·¬

ŏ¬·ἐ ~·¬ID

In the category of the Notion N(ἐ), by the second logical formula, ἐ·ἐ≡∅¬·x~y·¬, the mind introduces a second 'self ἐ', which represents 'the Notion'. Adding this second ἐ transforms the ŏ at the third logic position into ∅. ε̇·ε̇≡∅¬·x∼y·¬ can infinitely cycle with the third logical formula, ε̇·ε̇≡∅¬·y∼x·¬, because the fourth logic position is occupied by 'ε̇·ε̇'. Thus, whether it is x or y in the second logic position, any unity with ∅ in the third logic position cannot be distinctly recognized as either ε̇ or ε̇·. Once any determinateness unites with ∅ and is identified as ε̇, it immediately becomes ε̇·, leading to a swap of determinateness in the first and second logic positions.

Upon reaching the fifth logical formula, ε̇·ε̇≡¬·∅∼y·¬ ID, the mind employs ID to eliminate x, indicating that any determinateness aiming to transcend the 'negative certainty' of the first and second logic positions is immediately annihilated. By the sixth formula, ε̇· ≡ ε̇¬·∼∅·¬, all determinateness is erased. The next three formulas culminate in 'self ε̇' being absolutely unified with nothingness, and then the mind uses ID to remove one notion of self, transitioning from existence ε̇ to nothing ∅. The formula becomes ε̇¬·ŏ∼·¬, placing 'self ε̇' within the category of identity ID(ε̇)."

Transition to Categories in the Doctrine of Being

DB(ε̇)

¬·ε̇∼ŏ·¬

¬·ŏ∼ε̇·¬

¬·∅∼ε̇·¬

¬·∼∅·¬

BC

¬·∼ǒ·¬

¬·ǒ∼·¬

¬·∅∼·¬

¬·∼∅·¬

¬·∼ǒ·¬

Following the identity ID(ε̇), the logic progresses to DB(ε̇) and BC, thus returning the dialectic of The Notion back to The Doctrine of Being.

However, if we isolate the free item ε̇·ε̇≡∅ transformed by N(ε̇), the following transformations can be observed:

Theorem of Double Affirmations

ε̇·ε̇≡∅

≡≡∅

≡ǒ

∅

This indicates that all the categories up to N(ε̇) have not explicitly applied the principle of transforming ἐ·ἐ into ≡, even though this transformation is inherently contained within the categories of substantial relationships. However, these categories use it with specificity, primarily for generating items rather than transforming ő and ⌀. The work of transforming ő and ⌀ is carried out by ≡ derived from ¬·¬, implying that ἐ is still regarded as substance.

In contrast, the Buddhist Category of Notion explicitly contains the principle of transforming ἐ·ἐ into ≡ and applies it to the transformation of ő and ⌀."

Buddhist Category of The Notion

NB(ἐ)

ἐ· ≡ő¬·x~y·¬

ἐ·ἐ≡⌀¬·x~y·¬

ἐ·ἐ≡⌀¬·y~x·¬

ἐ·ἐ≡⌀¬·x~y·¬

ἐ·ἐ≡¬·⌀~y·¬ ID

ἐ· ≡ἐ¬·~⌀·¬

ἐ·ἐ¬·~ő·¬

ἐ·¬·ἐ~ὄ·¬ ID

ἐ¬·ὄ~ἐ·¬

ὄ¬·ἐ~ἐ·¬ ID

ὄ≡

⌀

In the Buddhist category of 'The Notion' NB(ἐ), by the sixth logical formula ἐ·≡ ἐ¬·~⌀·¬, the affirmation ≡ is removed, transforming the formula into ἐ·ἐ¬·~ὄ·¬. Buddhism does not perceive 'self' as possessing an independent being-for-self existence. Further computations lead to an important formula, ὄ¬·ἐ~ἐ·¬ ID, reflecting a frequently cited Buddhist scripture: 'All aggregates are impermanent and suffering, thus "not self, nor belonging to self."' , The structure ¬·ἐ~ἐ·¬ represents the most solid affirmation in the dialectical logic symbol system because it signifies 'the mutual abstraction and concretization of ἐ and ¬'.The final conversion of the formula from ὄ≡ to ⌀ indicates a cessation of thinking as the mind transitions into nothing.

Theorem of Nothing ⌀' Absoluteness

ὄ¬·ἐ~ἐ·¬ ID

ŏ≡

∅

But

ŏ

∅≡

∅¬·ἑ∼ἑ·¬

¬·∅∼ἑ·¬ID

¬·∼∅·¬

This theorem explains: Given that ∅ has the ability to eliminate any items, ∅ does not have symmetry when converting ∅ and ŏ using ≡ generated by the absolute structure ¬·ἑ∼ἑ·¬ above, and it does not have symmetry, and That is, ∅≡ cannot be converted into ŏ when ≡ is understood as ¬·ἑ∼ἑ·¬, but ŏ≡ can be converted into ∅.

On the Correct Beginning of the Dialectical Logic Symbol System

Theorem of Nothing ∅' Absoluteness can be regarded as an axiom equivalent to the technique just used to combine the free items of NB(ἑ).

According to the above two axioms, ŏ≡ from the beginning of the dialectical logic symbol system is not a correct way to lead to the Absolute that the system originally intended to achieve, because ǒ≡ can only be represented by the latter two of the three structures ¬·ἑ~ἑ·¬, ἑ·ἑ and ¬·¬ are transformed into the expression "≡". The reason is that if we understand ǒ≡ as ǒ¬·ἑ~ἑ·¬, then the only operations that can be performed are the following two:

The first type: the infinite identity of ἑ and ǒ

ǒ¬·ἑ~ἑ·¬

ἑ¬·ǒ~ἑ·¬ ID

or

ἑ¬·ǒ~ἑ·¬

ǒ¬·ἑ~ἑ·¬ID

The second type: NB(ἑ)

ǒ¬·ἑ~ἑ·¬

ǒ≡

ø

This consideration out of the Absolute forces us to realize that there is only one possibility for the beginning of the dialectical logic symbol system: the beginning of the dialectical logic symbol system is the reverse reasoning of NB(ε̇) and the splitting of its inner meaning:

The Reverse Reasoning of NB(ε̇)

ø

ǒ≡

ǒ¬·ε̇~ε̇·¬

ε̇¬·ǒ~ε̇·¬ ID

ε̇·¬·ε̇~ǒ·¬

ε̇·ε̇¬·~ǒ·¬ID

ε̇·ε̇≡¬·~ø·¬

What is being split here is the inner meaning of ¬·ε̇~ε̇·¬ and ε̇·ε̇ as the basis for the conversion of ≡.

However, we lack any axioms or operation rules that allow The Reverse Reasoning of NB(ε̇) to produce any items, so the absolute foundation of the beginning of the dialectical logic symbol system differs slightly from Axiom One, introduced at the start of this paper.

This is not to say that Axiom One is incorrect; rather, it demonstrates that we can hold two distinct attitudes toward dialectical thinking. I would describe the attitude of Axiom One as a Hegelian approach, while what I am about to discuss reflects an attitude that could stem from my understanding of Buddhist philosophy.

Since The Reverse Reasoning of NB(ἐ) cannot produce items, we are unable to explore how items arise from the foundation of truth. Thus, we need a specific technique: “to form combinations from the free items of the nearest categories that align with the free items of forward reasoning NB(ἐ) and N(ἐ).”

The free items in The Category of Reciprocity and in The Category of Causality connected by MUCAC(), which is mutually causal, are unique. The former is ἐ≡* RECI (x, y) ∧ ἐ·≡* RECI (x, y); the latter is [≡MUCAC (1) ∨ ≡MUCAC (4) ∨ ≡MUCAC (7)] ∧ [≡ὄMUCAC (2) ∨ ≡ὄ *MUCAC (3) ∨ ≡ὄ *MUCAC (5) ∨ ≡ὄ *MUCAC (6)]. These are special in that they lack any non-purely symbolic items, such as x, y, z, a, and so forth, making them similar to NB(ἐ) and N(ἐ). Furthermore, they are self-enclosed or self-circulating, with no space for inserted items, and this self-enclosure necessitates the following operation:

Combination One：Combination of RECI’ free items

ἐ≡ combines ἐ·≡

∴

ἐ·ἐ≡

≡≡

Thus, we obtain the partial structure of Theorem of Double Affirmations: ≡≡, so we attempt something different：

Combination Two: The Combination of the free items of RECI and Mutual Causality

ἐ≡ combines ≡ὄ

or

ἐ·≡ combines ≡ὄ

∴

ἐ≡ὄ

or

ἐ·≡ὄ

then we use **Axiom Three ADD：**

ε̇≡ǒ¬·x~y·¬

or

ε̇·≡ǒ¬·x~y·¬

Thus, we obtain two of the logical formulas of SID1 ().

Through “Combination Two,” we are able to create items at the beginning of the dialectical logic symbol system in the absolute sense. The combination method here indicates that the Theorem of Nothing (⌀)’ Absoluteness represents the true infinite in this system. If we are to retain the operations of the dialectical logic symbol system, we must accept that the operations are finite.

Potential relationship with Tai Chi (a preliminary attempt)

Now I am going to use an alternative method, that is, the Tai Chi diagram method, to tell you whether you should engage in dialectical thinking and what methods are available.

—: Yang hexagram represents "advance"

- -: Yin hexagram represents "retreat"

Since the dialectical logical symbol system is a Self-Return system, both "advance and retreat" and "retreat and advance" must be used to express a Self-Return. The following picture discusses issues such as whether to use Axiom One or Axiom Two. The small black dots in the picture are symbols representing abstraction and concretization.

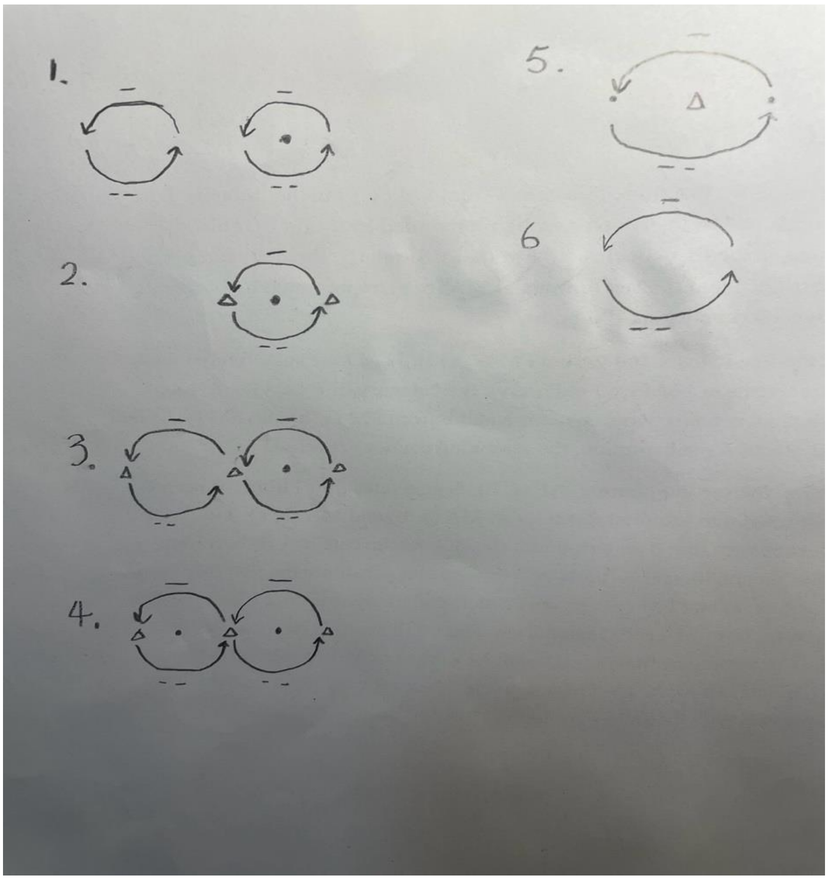

Figure 1

1.

Now we have the image on the left and the image on the right to choose from. We can choose the left side to represent that no axioms are used, and the directionality is imaginary;

we can also choose the right side to represent that a certain axiom is used, and the directionality is imaginary, but wether it is imaginary or not isn’t relevant to the small black dot.

2.

If we select the right side and really want to represent the directionality, then we have to draw two small triangles on either side of the small black dot. But in this way, these two small triangles cannot produce their own "advance and retreat" and "retreat and advance". The one on the left can only "retreat and advance " relative to the one on the right; and the one on the right can only "advance and retreat" relative to the one on the left.

3.

Now, in order to make the generated things capable of both "advance and retreat" and "retreat and advance" again, we first let the small triangle on the left generate this Self-Return, so we are adding a third small triangle on the far left.

4.

Then we select the steps on the right according to 1. and create another small black dot. In this way, we get the structure of the dialectical logic formula, between two small black dots, in the middle are The second logic position and The third logic position, and the two small triangles as the poles are The fourth logic position and The first logic position. According to the reversal of the directionality of the arrow in the middle triangle, the fourth and first logic bits also have Self-Return.

Should the two small black dots be considered Self-Return? Meaning: Should these two little black dots be considered poles and therefore draw a center point to achieve this (and this leads to infinite generating)? Answer 1: Yes, but it cannot be drawn because there is already a small triangle in the middle Answer 2: No, the instruction is consistent with the facts. Both answers yield failure of actual action.

5.

Therefore, 4. represents an action of elimination (somewhat equivalent to the failure), which is the embodiment of the fictitiousness on the left side of 1. Therefore, we delete the triangle at two poles originally used to construct directionality.

6.

Delete everything that represent directionality and return to the left selection of 1.

The actions after the fourth point can potentially be regarded as the embodiment of ø¬·ἐ~ἐ·¬.

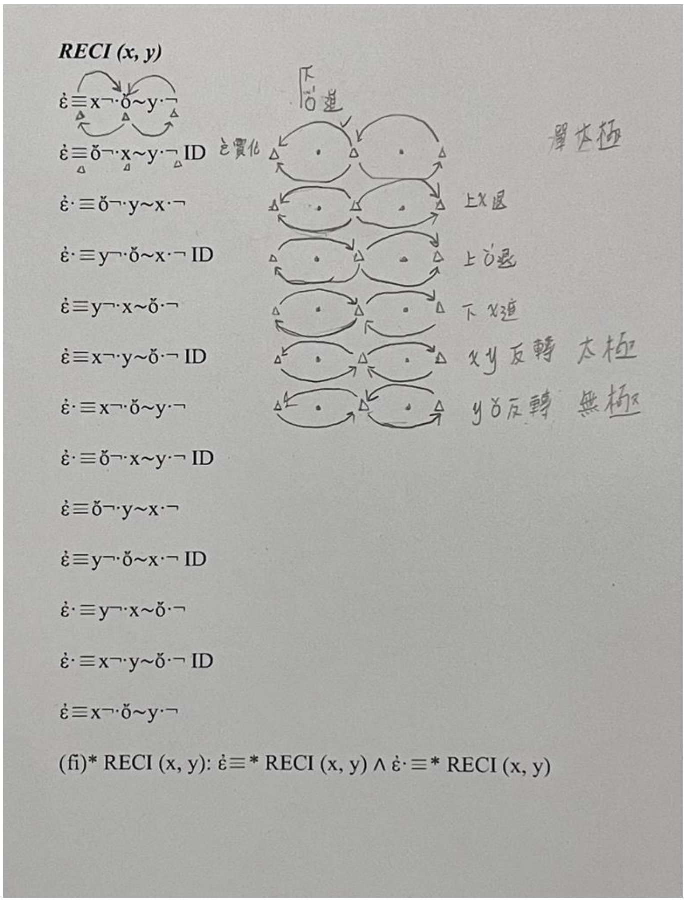

Figure 2

Here is an example: Figure 2 above uses the Taiji symbol to illustrate part of the flowchart within the Category of Reciprocity.

The Classical Continuum

Before entering the inference phase, we must first understand some continuums, among which the continuums of the categories of substantial relationships can be infinite.

The Cyclical Continuum of S () and S2 ()

S (x, y)

≡x¬·ǒ~y·¬ →≡x

ἐ≡x¬·y~ǒ·¬ →ἐ≡x

ἐ·≡x¬·y~⌀·¬ →ἐ·≡x

ἐ·x≡¬·⌀~·¬

ἐ·≡x¬·ǒ~·¬

ἐ≡x¬·~ǒ·¬

≡x¬·a~ǒ·¬ →≡x

(fi)*S (): [≡x*S (1) ∨≡x*S2 (7)] ∧ ἐ≡x*S (2)

(ncfi)*S (): ἐ·≡x*S (3)

S2(x, c)

≡x¬·a~ǒ·¬ →≡x

ἐ≡x¬·ǒ~a·¬ →ἐ≡x

ε̇· ≡x¬·∅~a·¬ →ε̇· ≡x

ε̇·x≡¬·~∅·¬

ε̇· ≡x¬·~ő·¬

ε̇≡x¬·ő~·¬

≡x¬·ő~d·¬ →≡x

(fi)*S2 (): [≡x*S2 (1) ∨≡x*S2 (7)] ∧ ε̇≡x*S2 (2)

(ncfi) *S2 (): ε̇· ≡x*S2 (3)

S (x, d)

≡x¬·ő~d·¬ →≡x

ε̇≡x¬·d~ő·¬ →ε̇≡x

ε̇· ≡x¬·d~∅·¬ →ε̇· ≡x

ε̇·x≡¬·∅~·¬

ε̇· ≡x¬·ő~·¬

ε̇≡x¬·~ő·¬

≡x¬·e~ő·¬ →≡x

(fi)*S (): [≡x*S (1) ∨≡x*S2 (7)] ∧ ἐ≡x*S (2)

(ncfi) *S (): ἐ· ≡x*S (3)

S2 (x, e)

≡x¬·e~ὄ·¬ →≡x

ἐ≡x¬·ὄ~e·¬ →ἐ≡x

ἐ· ≡x¬·⌀~e·¬ →ἐ· ≡x

ἐ·x≡¬·~⌀·¬

ἐ· ≡x¬·~ὄ·¬

ἐ≡x¬·ὄ~·¬

≡x¬·ὄ~f·¬ →≡x

(fi)*S2 (): [≡x*S2 (1) ∨≡x*S2 (7)] ∧ ἐ≡x*S2 (2)

(ncfi) *S2 (): ἐ· ≡x*S2 (3)

The Cyclical Continuum of SID1 () and SID2 ()

SID1(x, y)

≡ǒ¬·y~x·¬ →≡ǒ

ἑ≡ǒ¬·x~y·¬ →ἑ≡

ἑ≡x¬·ǒ~y·¬ID →ἑ≡x

ἑ·≡x¬·y~ǒ·¬ →ἑ·≡x

ἑ·x≡¬·y~ø·¬

ἑ·≡x¬·ø~·¬

ἑ≡x¬·ǒ~·¬

≡x¬·ǒ~a·¬ →≡x

(fi) * SID1(): ἑ≡* SID1(2) ∧ ἑ≡x* SID1(3) ∧≡x* SID1(8)

(ncfi) * SID1(): ≡ǒ* SID1(1) ∧ ἑ·≡x*SID1(4)

SID2(x, a)

≡x¬·ǒ~a·¬ →≡x

ἑ≡x¬·a~ǒ·¬ →ἑ≡x

ἑ·≡x¬·a~ø·¬ →ἑ·≡x

ἑ·x≡¬·ø~·¬

ἑ·≡x¬·ŏ~·¬

ἑ≡x¬·ŏ~b·¬ →ἑ≡

ἑ≡ŏ¬·x~b·¬ID →ἑ≡ŏ

≡ŏ¬·b~x·¬ →≡ŏ

(fi)*SID2 (): ≡x* SID2(1) ∧ ἑ≡x* SID2(2) ∧ ἑ≡*SID2(6) ∧ἑ≡ŏ* SID1(7) ∧≡ŏ* SID1(8)

(ncfi)*SID2 (): ἑ·≡x*SID1(3)

S (x, y) — SID1 (x, y): SSID1()

≡x¬·ŏ~y·¬ →≡

≡ŏ¬·x~y·¬ID →≡ŏ

≡ŏ¬·y~x·¬TIF

≡y¬·ŏ~x·¬ID →≡y

(fi)*SSID1 (): ≡*SSID1(1) ∧ ≡ŏ* SSID1(2) ∧ ≡y* SSID1(4)

The Influence of SSID1() on S (x, y)

Post S (x, y) by S (x, y) - SID1 (x, y)

≡x¬·ǒ~y·¬ →≡

ἐ≡x¬·y~ǒ·¬ →ἐ≡x

ἐ·≡x¬·y~⌀·¬ →ἐ·≡x

ἐ·x≡¬·⌀~·¬

ἐ·≡x¬·ǒ~·¬

ἐ≡x¬·~ǒ·¬

≡x¬·a~ǒ·¬ →≡x

(fi)*S (x, y): ≡*S (1) ∧ ἐ≡x*S (2) ∧≡x*S (7)

(ncfi)*S (x, y): ἐ·≡x*S (3)

AC () — ⌀

≡x¬·ǒ~y·¬ →≡

≡ǒ¬·x~y·¬ID →≡ǒ

≡ǒ←

⌀

Here, however, there is a possibility of leading to nothing ⌀.

The Continuum of Causality

MUCAC ()

≡x¬·ǒ~y·¬ID →≡

≡ǒ¬·x~y·¬ID →≡ǒ

≡ǒ¬·y~x·¬TIF →≡ǒ

≡y¬·ǒ~x·¬ID →≡

≡ǒ¬·y~x·¬ID →≡ǒ

≡ǒ¬·x~y·¬TIF →≡ǒ

≡x¬·ǒ~y·¬ID →≡

or

MUCAC (x, y)

≡y¬·ǒ~x·¬ →≡

≡ǒ¬·y~x·¬ID →≡ǒ

≡ǒ¬·x~y·¬TIF →≡

≡x¬·ǒ~y·¬ID →≡x

or

MUCAC (y, x)

≡x¬·ǒ~y·¬

≡ǒ¬·x~y·¬ID →≡ǒ

≡ǒ¬·y~x·¬TIF →≡

≡y¬·ǒ~x·¬ID →≡y

The three types of causal relationships and their connection modes to actualities are very important because the application of ID or TIF to either ≡ǒ¬·y~x·¬ or ≡ǒ¬·x~y·¬ affects which formula transforms into ≡ǒ. This impacts the direction of causality. If both are possible, then the two are mutually causal.

MUCAC (x, y)

≡y¬·ǒ~x·¬ →≡

≡ǒ¬·y~x·¬ID →≡ǒ

≡ǒ¬·x~y·¬TIF →≡

≡x¬·ǒ~y·¬ID →≡x

(fi)* MUCAC (x, y): ≡*MUCAC (1) ∨ ≡*MUCAC (3)

(ncfi)* MUCAC (x, y): ≡ǒ* MUCAC (2) ∨≡x* MUCAC (4)

CAUS (x, y)

≡x¬·ǒ~y·¬ →≡x

ἐ≡x¬·y~ǒ·¬

x≡ἐ¬·y~ǒ·¬ ID →x≡

x≡y¬·ἐ~ǒ·¬ ID →x≡y

x·≡y¬·ǒ~ἐ·¬ →x·≡y

x·y≡¬·∅~ἐ·¬

x·≡y¬·~∅·¬

x≡y¬·~ǒ·¬

x≡¬·y~ǒ·¬ ID

≡x¬·ǒ~y·¬ →≡x

(fi)*CAUS (): x≡*CAUS (3) ∧ x≡y*CAUS (4)

(ncfi)CAUS (): x·≡y*CAUS (5) ∧ [≡x*CAUS (1) ∨ ≡x*CAUS (10)]

The above illustrates x as the cause.

MUCAC (y, x)

≡x¬·ŏ~y·¬

≡ŏ¬·x~y·¬ID →≡ŏ

≡ŏ¬·y~x·¬TIF →≡

≡y¬·ŏ~x·¬ID →≡y

(fi)* MUCAC (): ≡*MUCAC (1) ∨ ≡*MUCAC (3)

(ncfi)* MUCAC (): ≡ŏ* MUCAC (2) ∨≡y* MUCAC (4)

CAUS (y, x)

≡y¬·ŏ~x·¬ →≡y

ἐ≡y¬·x~ŏ·¬ →≡

y≡ἐ¬·x~ŏ·¬ ID →y≡

y≡x¬·ε̇~ŏ·¬ ID →y≡x

y·≡x¬·ŏ~ε̇·¬ →y·≡x

y·x≡¬·⌀~ε̇·¬

y·≡x¬·~⌀·¬

y≡x¬·~ŏ·¬

y≡¬·x~ŏ·¬ ID

≡y¬·ŏ~x·¬ →≡y

(fi)CAUS (): y≡*CAUS (3) ∧ y≡x*CAUS (4)

(ncfi)CAUS (): y·≡x*CAUS (5) ∧ [≡y*CAUS (1) ∨ ≡y*CAUS (10)]

The above illustrates y as the cause.

MUCAC ()

≡x¬·ŏ~y·¬ID →≡

≡ŏ¬·x~y·¬ID →≡ŏ

≡ŏ¬·y~x·¬TIF →≡ŏ

≡y¬·ŏ~x·¬ID →≡

≡ǒ¬·y~x·¬ID →≡ǒ

≡ǒ¬·x~y·¬TIF →≡ǒ

≡x¬·ǒ~y·¬ID →≡

CAUS (x, y)

≡x¬·ǒ~y·¬ID →≡

ἐ≡x¬·y~ǒ·¬ →≡

x≡ἐ¬·y~ǒ·¬ ID →x≡

x≡y¬·ἐ~ǒ·¬ ID →x≡y

x·≡y¬·ǒ~ἐ·¬ →x·≡y

x·y≡¬·⌀~ἐ·¬

x·≡y¬·~⌀·¬

x≡y¬·~ǒ·¬

x≡¬·y~ǒ·¬ ID

≡x¬·ǒ~y·¬ →≡x

(fi)*CAUS (): [≡*CAUS (1) ∨ ≡*CAUS (2)] ∧ x≡*CAUS (3) ∧ x≡y*CAUS (4)

(ncfi)*CAUS (): x·≡y*CAUS (5) ∧ ≡x*CAUS (10)

CAUS (y, x)

≡y¬·ŏ~x·¬ID →≡

ἐ≡y¬·x~ŏ·¬ →≡

y≡ἐ¬·x~ŏ·¬ ID →y≡

y≡x¬·ἐ~ŏ·¬ ID →y≡x

y·≡x¬·ŏ~ἐ·¬ →y·≡x

y·x≡¬·⌀~ἐ·¬

y·≡x¬·~⌀·¬

y≡x¬·~ŏ·¬

y≡¬·x~ŏ·¬ ID

≡y¬·ŏ~x·¬ →≡y

(fi)CAUS (): [≡*CAUS (1) ∨ ≡*CAUS (2)] ∧ y≡*CAUS (3) ∧ y≡x*CAUS (4)

(ncfi)CAUS (): y·≡x CAUS (5) ∧ ≡y*CAUS (3)

The above illustrates mutual causality.

The Linear Sequence of the Categories of Causality

CAUS (a, b)

≡a¬·ǒ~b·¬ →≡a

ἐ≡a¬·b~ǒ·¬

a≡ἐ¬·b~ǒ·¬ ID →a≡

a≡b¬·ἐ~ǒ·¬ ID →a≡b

a·≡b¬·ǒ~ἐ·¬ →a·≡b

a·b≡¬·ø~ἐ·¬

a·≡b¬·~ø·¬

a≡b¬·~ǒ·¬

a≡¬·b~ǒ·¬ ID

≡a¬·ǒ~b·¬ →≡a

(fi)*CAUS (): a≡*CAUS (3) ∧ a≡b*CAUS (4)

(ncfi)*CAUS (): a·≡b*CAUS (5) ∧ [≡a*CAUS (1) ∨ ≡a*CAUS (10)]

MUCAC (a, b)

≡a¬·ǒ∼b·¬ →≡a

≡ǒ¬·a∼b·¬ID →≡

≡ǒ¬·b∼a·¬TIF →≡

≡b¬·ǒ∼a·¬ID →≡b

(fi)* MUCAC (a, b): ≡*MUCAC (2) ∨ ≡*MUCAC (3)

(ncfi)* MUCAC (a, b): ≡a* MUCAC (1) ∨≡b* MUCAC (4)

AC (b, a)

≡b¬·ǒ∼a·¬ID →≡b

b≡ǒ¬·a∼·¬

b≡a¬·ǒ∼·¬ ID

≡b¬·a∼ǒ·¬ →≡b

≡b·¬·a∼∅·¬ →≡b·

≡b¬·∅∼·¬

b≡¬·ǒ∼·¬

≡b¬·ǒ∼c·¬ →≡b

(fi)AC (b, a): ≡b*AC (1) ∨ ≡b*AC (4) ∨ ≡*bAC (8)

(ncfi)*AC (b, a): ≡b·*AC (5)

CAUS (b, c)

≡b¬·ǒ~c·¬ →≡b

ἐ≡b¬·c~ǒ·¬

b≡ἐ¬·c~ǒ·¬ ID →b≡

b≡c¬·ἐ~ǒ·¬ ID →b≡c

b·≡c¬·ǒ~ἐ·¬ →b·≡c

b·c≡¬·⌀~ἐ·¬

b·≡c¬·~⌀·¬

b≡c¬·~ǒ·¬

b≡¬·c~ǒ·¬ ID

≡b¬·ǒ~c·¬ →≡b

(fi)*CAUS (b, c): b≡*CAUS (3) ∧ b≡c*CAUS (4) (ncfi)*CAUS (b, c): b·≡c*CAUS (5) ∧ [≡b*CAUS (1) ∨ ≡b*CAUS (10)]

MUCAC (b, c)

≡b¬·ǒ∼c·¬ →≡b

≡ǒ¬·b∼c·¬ID →≡

≡ǒ¬·c∼b·¬TIF →≡

≡c¬·ǒ∼b·¬ID →≡c

(fi)* MUCAC (b, c): ≡*MUCAC (2) ∨ ≡*MUCAC (3)

(ncfi)* MUCAC (b, c): ≡b* MUCAC (1) ∨≡c* MUCAC (4)

AC (c, b)

≡c¬·ǒ∼b·¬ ID →≡c

c≡ǒ¬·b∼·¬

c≡b¬·ǒ∼·¬ ID

≡c¬·b∼ǒ·¬ →≡c

≡c·¬·b∼⌀·¬ →≡c·

≡c¬·⌀∼·¬

c≡¬·ŏ~·¬

≡c¬·ŏ~d·¬ →≡c

(fi)*AC (c, d): ≡c*AC (1) ∨ ≡c*AC (4) ∨ ≡c*AC (8)

(ncfi)*AC (c, d): ≡c·*AC (5)

CAUS (c, d)

≡c¬·ŏ~d·¬ →≡c

ἐ≡c¬·d~ŏ·¬

c≡ἐ¬·d~ŏ·¬ ID →c≡

c≡d¬·ἐ~ŏ·¬ ID →c≡d

c·≡d¬·ŏ~ἐ·¬ →c·≡d

c·d≡¬·ø~ἐ·¬

c·≡d¬·~ø·¬

c≡d¬·~ŏ·¬

c≡¬·d~ŏ·¬ ID

≡c¬·ǒ~d·¬ →≡c

(fi)*CAUS (c, d): c≡*CAUS (3) ∧ c≡d*CAUS (4)

(ncfi)*CAUS (c, d): c·≡d*CAUS (5) ∧ [≡c*CAUS (1) ∨ ≡c*CAUS (10)]

Thus, we have:'a is the cause of b' → 'b is the cause of c' → 'c is the cause of d'… and so on, continuing in this manner.

Preliminary Exploration of Inference in Dialectical Logic Symbolism

Inference in the dialectical logic symbol system involves the expansion of categories and thought continuums. This expansion is guided by a single simple rule: the "move" of free items between different logical formulas. Such moves generate new categorical pathways and new thought continuums, and only when these new pathways and continuums are created can the original free items be moved back into the premises of existing categories or thought continuums.

The 'purpose' and 'certainty' of inference lie in returning thought as swiftly as possible to those premises that already possess a self-returning structure. In this process, the 'newly generated categorical pathways and continuums' produced by returning to these premises serve as the 'conclusions' of inference in the dialectical logic symbol system.

Axiom Six: Necessity of Inference

x¬·ǒ~y·¬ →x*Category(n)

Category (a)

¬·ǒ~a·¬ ←x*Category(n)

x¬·ǒ~a·¬ →x

The above operation is not allowed.

Explanation: "Extracting x as a free item, inserting it into a formula within another category, and then immediately extracting x again" is not permitted. This means that x¬·ǒ~a·¬ must undergo further operations before x can be extracted again, which implies a process of "inference."

In the process of inference, if a free item, such as x, is introduced into a formula like ¬·ǒ~a·¬, forming a category with x¬·ǒ~a·¬ as the first formula (e.g., FM (x, a)), then x*FM (xa'4) can be derived and subsequently reinserted into x¬·ǒ~y·¬ as a free item in the position indicated by →x. Through the marking of the inference process, we can track the final position of x as a free item.

Inference using F (x, y) and AP (a, b) as premises

Premise 1
F (x, y)

FM (x, y) 1~6

x¬·ǒ~y·¬ →x

x·¬·y~ǒ·¬

x¬·y~ø·¬

y¬·x~ø·¬ID → y

y·¬·ø~·¬

y¬·ǒ~·¬ ← x*F (1)

FM (y, x) 7~12

y¬·ǒ~x·¬ → y

y·¬·x~ǒ·¬

y¬·x~ø·¬

x¬·y~ø·¬ID → x

x·¬·ø~·¬

x¬·ǒ~·¬ ← y*F (7)

(ncfi)*F (): y*F (4) ∧ x*F (10)

Premise 2
AP (a, b)

MA (a, b) 1~5

a¬·ǒ~b·¬ ID → a

a·¬·b~ǒ·¬

a¬·b~ø·¬

a·¬·ø~·¬

a¬·ǒ~·¬ ← b*AP (ab'8)

TIF (a, b) 6~7

ǒ¬·a~b·¬ TIF

ǒ¬·b~a·¬ TIF

MA (b, a) 8~12

b¬·ǒ~a·¬ ID → b

b·¬·a~ǒ·¬

b¬·a~⌀·¬

b·¬·⌀~·¬

b¬·ǒ~·¬ ← a*AP (ab'1)

(fi)*AP (): None

Conclusions

1.

FM (a, x)

a¬·ǒ~x·¬ → a

a·¬·x~ǒ·¬

a¬·x~⌀·¬

x¬·a~⌀·¬ ID → x

x·¬·⌀~·¬

x¬·ǒ~·¬

(ncfi)*FM*(): a*FM (ax'1)

2.

FM (b, y)

b¬·ǒ~y·¬→ b

b·¬·y~ǒ·¬

b¬·y~⌀·¬

y¬·b~⌀·¬ID → y

y·¬·⌀~·¬

y¬·ǒ~·¬

(ncfi)*FM (b, y): b*FM (by’1) ∧ y*FM (by’4)

3.

FM (y, a)

y¬·ǒ~a·¬⟶ y

y·¬·a~ǒ·¬

y¬·a~⌀·¬

a¬·y~⌀·¬ID → a

a·¬·⌀~·¬

a¬·ǒ~·¬

(ncfi)*FM (): y*FM (ya’1) ∧ a*FM (ya’4)

4.

FM (x, b)

x¬·ǒ~b·¬⟶ x

x·¬·b~ǒ·¬

x¬·b~⌀·¬

b¬·x~⌀·¬ID → b

b·¬·⌀~·¬

b·¬·ǒ~·¬

(ncfi)*FM*(): x*FM (xb’1) ∧ x*FM (xb’4)

Mechanism of F – AP 3

[AP (ab’5) ← x*F (xy’10)] ∧ [AP (ab’12) ← y*F (xy’4)]
∴ FM (a, x) ∧ FM (b, y)

[FM (by’6) ← a*FM (ax’1)] ∧ [FM (ax’6) ← b*FM (by’1)]

∴ FM (y, a) ∧ FM (x, b)

[F (xy’4) ← y*FM (ya’1)] ∧ [F (xy’10) ← x*FM (xb’1)]

∴ F (x, y) restored

[FM (ya’6) ← b*FM (xb’4)] ∧ [FM (xb’6) ← a*FM (ya’4)]

∴ AP (a, b) restored

As the author, it is my **responsibility** to keep the initial setting of the system as stable as possible, but it will be very unwise for me to imagine all inferences and applications. If you truly feel that this system has the potential to articulate yourself in a better way, then I wish I can officially become a reader with you, so we could build the **equations** together.

Result

Through the establishment of various categories within the dialectical logic symbol system and the exploration of its potential inferential processes, we now have a tool that can accurately describe the different states of consciousness formed by the “subject/object” relationship. This allows us to overcome the complexity and obscurity for which idealism and continental philosophy have often been criticized.

The operation of this system also enables us to explore fundamental linguistic questions, such as “How is a noun generated?”, which may be related to the category of the thing itself, and “How is an adjective generated?”, connected to the first logical position in the category of determined being within the Doctrine of Being. Finally, we can examine “How is a definitional structure created and transformed?”, a question that pertains to the entire scope of the category of actuality.

Most importantly, this system provides us with a precise tool to incorporate the self into its operations. This has significant philosophical implications, as it suggests that our mind possesses a unique origin and mode of operation that cannot be reduced to mathematics or traditional logic.

Discussion

The creation of this dialectical logic symbol system was primarily aimed at capturing the contradictions, transformations, and truths of the human mind. If we try to consider the 'qualitative/quantitative' methodological divide, this system can be said to be designed to provide a precise logical tool for qualitative methods. In an era where quantitative methods are so meticulously developed, the lack of a logic system that can accommodate and utilize contradictions in an irreducible qualitative manner means that areas such as human emotions, society, ethics, and religion risk being interpreted through a predominantly materialist lens, because we tend to choose the model with the greatest explanatory and predictive power. From a humanistic perspective, this tendency towards reductive interpretation is not conducive to a healthy understanding of human experience.

There are always parts of the mind that are excluded from these quantitative frameworks, and as we become increasingly detached from the principles governing these mental forces, our understanding of them fades. In my experience with the Buddhist meditative system, I have seen a rigorously structured mental process that is effective in guiding the human mind—one that cannot be quantified or reduced to numerical representation. This system, therefore, seeks to offer a framework capable of reflecting these qualitative aspects of human consciousness and spirituality.

Naturally, I am inclined to discuss how this novel system relates to traditional logic, particularly since I have adopted the negation symbol ¬, which aligns with previous logical frameworks. However, at this stage, I am not yet in a position to fully engage in this discussion, as the system is still in its early stages of development, lacking sufficient application and critique. I hope that as this system is adopted and refined in the future, these connections will become clearer. After all, we are entering a philosophical era, driven by the development of artificial intelligence, where serious reflection on the nature of human consciousness is more pressing than ever.

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