A Preparatory Study for Resolution of Contradiction of Unity
－For a Logic of the Way of Life －

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1. Preface 1) TRIZ

- TRIZ is an assemblage of formal methods consisting of changing 1 value of 1 attribute, handling 2 values of 1 Object (PC) and handling 2 attributes (TC), which cover all types of change of Object.

- This seems to mean that TRIZ could be a unified thought and method applicable to every action and become formal basic of operational science. [TS2009]

- Attitudes to review Dialectical Logic by Genrikh S. Altshuller made this possibility of TRIZ in former Soviet Union.

1. **Preface** 2) My previous works

- Review of Object [TS2005]

- Review of existing Dialectical Logic and enumeration of types of contradiction in 2011

- Investigation of Object change which was to be results of contradiction [TS2006] [TS2007] [TS2008]

- These contents depend on Radical thinking for enumeration (RTE) [TS2010] [FIT2010]

1. **Preface** 3) Agenda

- Chap. 2: Outline of RTE. Outline of review of basic concepts such as Object, judgment and law which are results of RTE

- Chap. 3: Review of contradiction, Enumeration of types of contradiction [FIT2011]

- Chap.4: A preparatory study for resolution of contradiction of unity. Ideal final problem

2. Radical Thinking for Enumeration
RTE [TS2010]

Humbly and critically, continue to enumerate kinds of Object World and review granularity and structure of Object World

Object World includes basic concept, judgment, law and contradiction

Three timing: Study in advance, Decide viewpoint and attributes at this moment, Judge how to act taking some time

2. RTE and Review of basic concepts
Review of basic concepts 1)

Requirements of grasping Object (or basic Object World) are able

1. To describe differences between Object and other thing,

2. To describe inner structure of Object,

3. To enumerate kinds of Object which need different way to handle

These three are indispensable to make us recognize, define Object and change Object.

2. RTE and Review of basic concepts
Review of basic concepts 2)

An element of anything recognizable is called **Object**

1. **Matter** : System Object

2. Fixed **"Mind" or "Idea"** : System Object

   21. Information of individual or common notion which is taken by physical entity

   22. My fixed mind

3. **Movement** or Action : Process Object   **Movement** is **process** from a viewpoint of time and **action** from a viewpoint of relation between itself and other thing **to change** itself and other thing.

Object is I, Other Person, Matter, Movement at different granularity
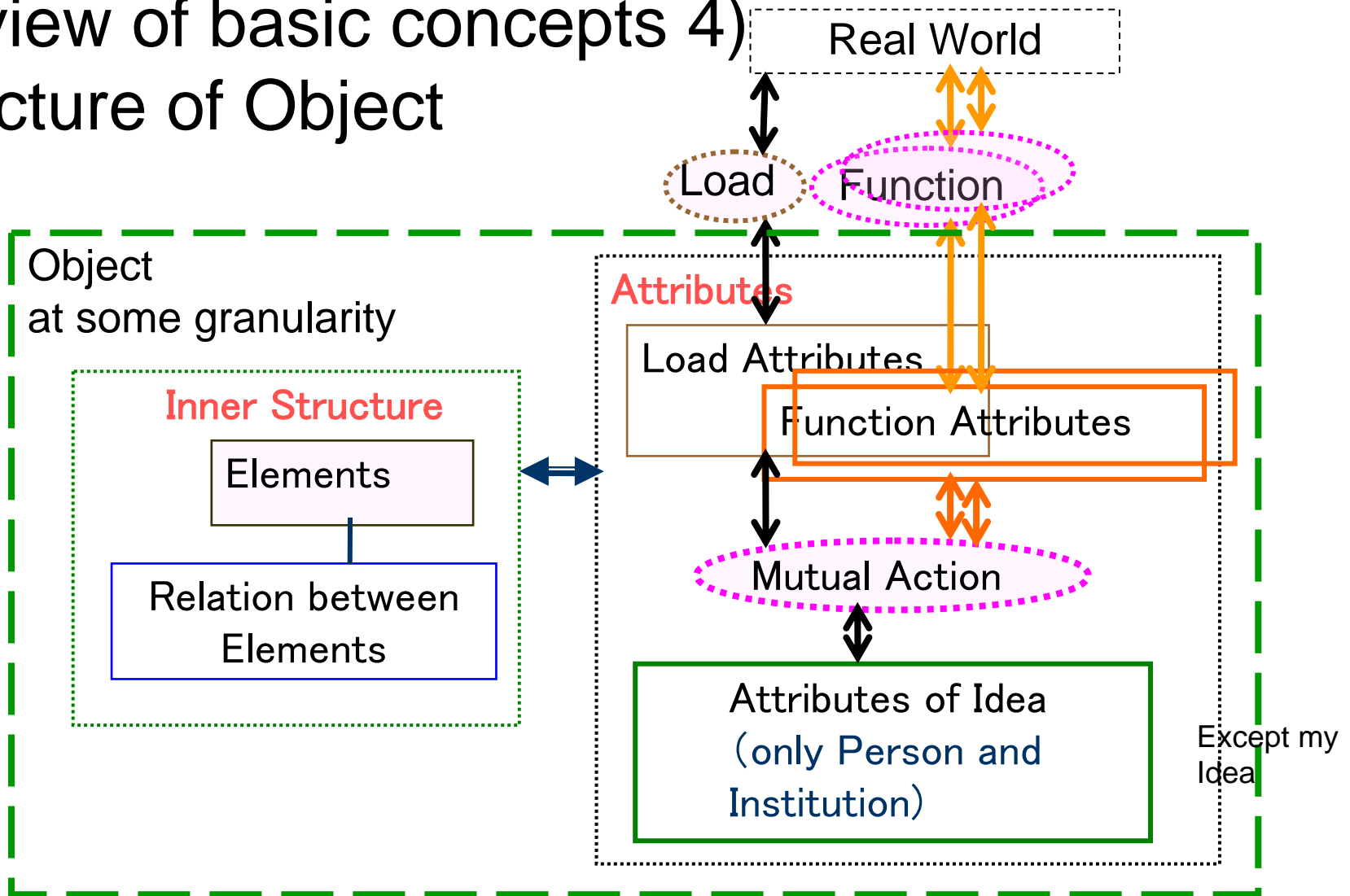
2. RTE and Review of basic concepts Review of basic concepts 3)

- **Object World**= Complex of Object and/or attributes
- **Granularity**= Size, magnitude or scope in space and/ or time and degree of abstraction
- **Function**= (primarily) Meaning of Process Object, (secondly) Meaning of attributes of Object
- **Structure**= Granularity and inner structure

2. RTE and Review of basic concepts
Review of basic concepts 4) Structure of Object

Real World

Load   Function

Object
at some granularity

Attributes

Load Attributes

Function Attributes

Inner Structure

Elements

Relation between Elements

Mutual Action

Attributes of Idea
（only Person and Institution）

Except my Idea

2. RTE and Review of basic concepts Review of judgment and law 1)

Element of Judgment

1. Contents: Existence of Object or attributes, Movement of existence+ Contents of Law

2. Form：Subjective Part + Objective Part

Law

1. Contents: 11. One Object: Change of one attribute, Relation(including movement) between attributes, Change as results of movement,

12. Objects; Relation (including movement) between Objects, Change as results of movement

2. Form： Input + Output

2. RTE and Review of basic concepts Review of judgment and law 2)

Review of judgment: Change granularity of judgment or each part of judgment

A. Change judgment maintaining subject, object and structure
    Enumerate attributes of subject and object. And 1. Change them. 2. Delete them (replace subject or object with coarser granularity), 3. Add attributes (replace subject or object with finer granularity), 4. Enumerate subjective part having the same objective part to make new subjective part. (Replace to new subjective part having coarser granularity)

B. Example of changing structure of judgment
    5. By doing 4, subjective part and objective part have a same contents. We can get a new definition by exchanging subjective part and objective part.
    Example: We got definition of existence from judgment "Existence mutually act other existence". (And we got definition of Object consisting of existence and mutual action.)
    Example: From judgment "Commodity is a assemblage of attributes", we got definition of existence or Object.
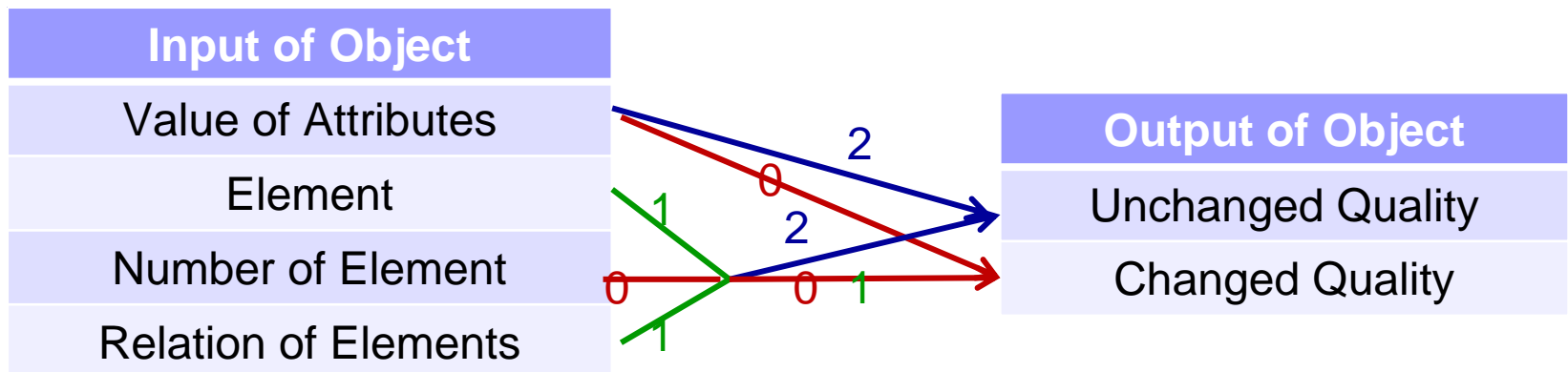
2. RTE and Review of basic concepts Review of judgment and law 3)

Review of law: Enumerate elements of input, output and conditions of law and change each of them and granularity of law extremely

 e.g.: expansion of the law of the mutual transformation of quantitative and qualitative changes 0

First addition; This law is added to mean that change of element and inner structure can change quality of Object. By this addition we obtain enumeration of factors to cause quality change of Object. 1 [FIT2009] [TS2010]

Second expansion; This law is expanded to mean that change of attributes, element itself, number of element and inner structure can change quality or quantity of Object. 2 [FIT2009] [TS2010]

Input of Object
Value of Attributes
Element
Number of Element
Relation of Elements

Output of Object
Unchanged Quality
Changed Quality

2 0 1 2 0 1

3. Review of contradiction

Contradiction is **mutual action to cause movement**

Contradiction is **element of approximation of structure and change of the world**

Contradiction consists of **opposites and mutual action** from viewpoint of inner structure

How to grasp contradiction:
1.How to classify kinds of inner structure Enumeration of kinds of inner structure
2.Mutual action is cooperative or hostile?
3.How to classify kinds of solution. Enumeration of kinds of solution.
4.How to classify kinds of area. Enumeration of kinds of area.
5.Enumeration of law of contradiction.

3. Review of contradiction Classification of contradiction 1

Classify kinds of contradiction from a viewpoint of contents of whole movement consisting of autonomous movement, human action and thought

How to classify kinds of contradiction from a viewpoint of form of Object

1. Opposites can be any kind of Object consisting of matter, mind and movement. Mutual action can be in any area including physical world, attitudes or thinking world.
2. Enumerate granularity of contradiction
3. Enumerate density of contradiction: Opposites are two values of one attributes, two attributes of one or two Objects

3. Review of contradiction Classification of contradiction 2

1. Autonomous contradiction

2. Contradiction to start action or thinking

"**Physical Contradiction**" : Opposites are two values of one attribute. Intentional effort to recognize differences between these two values and resolve differences is mutual action to form contradiction. The solution start real action or thinking.

"**Technical Contradiction**" : Opposites are two attributes. Intentional effort to make these two attributes compatible or to make them equal is mutual action to form contradiction. The solution start real action or thinking.

Contradiction of unity: Originally united thing is divided to two things. These two things are re-united by intentional effort.

3. Review of contradiction Classification of contradiction 3

Note 1：Function and structure in evolutional history is not "Technological Contradiction". Because no intention is involved in this case. Function and structure in the case someone want to make two attributes of function and structure compatible is "Technological Contradiction". Because intention is involved in this case.

Note 2：Phenomenon and Essence, or Concreteness and Abstraction are usually dealt with contradiction. But these are not contradiction but only two mutually dependent recognition. Only when, for example, we seek essence from phenomenon, both opponents and mutual action can be dealt with elements of contradiction. In this case this is "Physical Contradiction 4".

3. Review of contradiction
Classification of inner structure of contradiction 1

a) Contradiction having two values of one attribute to resolve
   differences
   10) "Physical Contradiction 1"
   Change itself in autonomous contradiction
   Contradiction of real world at density of change itself.

   20) "Physical Contradiction" having two values of one attribute
      201) "Physical Contradiction 3" PC3
      Contradiction to start <u>action</u> having a value "a" at this time and a
         value "b" of <u>simple purpose</u> at different time
      Viewpoint of <u>simple purpose</u>: 1) Make new function, 2) Solve issues,
         3) Idealize. The differences between these three [TS2006] are relative.
      This is solved by simple solution using Principle U,P,M,D,R[TS2007- 9]

3. Review of contradiction
Classification of inner structure of contradiction 2

202) "Physical Contradiction 2", PC2 which is usual "Physical Contradiction" in TRIZ
Contradiction to start action or thinking having a value "a" and a quite different value "b" at the same time
Solution by Separation Principle can start action

3. Review of contradiction
Classification of inner structure of contradiction 3

b) Contradiction having two attributes of one or two Object
   Intentional effort to make two attributes compatible or to make them equal is mutual action. Making two attributes equal is part of making them compatible
   11) Structure of change in autonomous contradiction
     111) Opposites are two attributes in one Object
     112) Opposites are two attributes in two Objects

   21) "Technical Contradiction" TC having two attributes
     211) "Technical Contradiction 1", TC1
       Usual "Technical Contradiction" in TRIZ
       Resolve side-effects <u>afterward</u> to make two attributes compatible

3. Review of contradiction

Classification of inner structure of contradiction 4

212) "Technical Contradiction 2" TC2

Intentional effort to make two attributes compatible or to make them equal <u>in advance</u> is mutual action.

  2121) TC21 of generating or maintaining system having compatible two attributes without some Object

  2122) TC22 of Intentional effort to make two attributes compatible or to make them equal <u>in advance</u>

    21221) TC221 of Intentional effort to make two attributes compatible <u>in advance</u>

    21222) TC222 of Intentional effort to make them equal <u>in advance</u>

    Invention of "barter" [TS2010] is a resolved solution to have equal two attributes

3. Review of contradiction
Classification of inner structure of contradiction 5

22) Contradiction of unity

Two Object formerly united is united by effort

  221) Two attributes form contradiction of unity

    2211) Basic contradiction of unity

    2212) Unity of separated two actions

    2213) Unity of action and thought

      22131) Unity of action and thought: e.g. Recognition and action

      22132) Unity of two thoughts: e.g. Viewpoint and attitude

      22133) Unity of two attitude: e.g. Humbleness and criticism

    2214) Unity of two fixed thing and movement

    2215) Unity of history and logic

3. Review of contradiction
Review make what possible?

1. We have come to grasp every movement and change as contradiction. We can specify contradiction by selecting granularity and density and setting viewpoint of purposes.
2. This is to decide my attitude at this moment.
3. Synthesis for recognition and change can be done using contradiction as elements. Method of Resolving Differences and Compatibility [TS2010 3.3] will be easily enhanced using enumerated contradiction. This is performed by combination of simple PC3 and other contradictions.

4. Contradiction of unity   1) History

• Originally there is unity. Technology and institution started at some stage of history. Technology deal with relation between individual and object. Institution deal with relation between individual and community. Development in each area was reached almost by separation.

• We have problems of alienation in relation between individual and object, and hostility in relation between individual and community.

• We need unification.

4. Contradiction of unity
2) Formularization of the final ideal 1

For everyone and every action every time, we have the final ideal from the viewpoint of unity of individual and object, other person and community and from the viewpoint of change.
1. Sense of value: I and others have attitude to seek for ideal sense of value in common.
2. Function for object and community: Everyone continue to do effort to realize the value for every object and community. Every object and community continue to enhance.

4. Contradiction of unity
2) Formularization of the final ideal 2

3. Function for subject: The effort to realize value is performed by our whole ability better than before. The effort contributes to enhance us better than before.

4. Mind: I and others recognize real world, ability of us, and action of us are better than before and recognize them better than before. I recognize I others and community are more united in the sense that they are mutually dependent than before and I recognize that better than before.

4. Contradiction of unity   3) Study

1. Value is a kind of attributes. Intentional effort should be made for these two attributes to be compatible or to make them equal in the world.
2. Consciousness of possessing and that of belonging should be replaced to new consciousness of unity.

3. We need continuous change to reach ideality.
4. We need change technology, institution and subject simultaneously.
5. Every action or thought of every person can contribute to the final ideal.

5. Conclusion

- Framework of whole thought is RTE which continue to enumerate kinds of Object World and review granularity and structure of Object World and Resolving Differences and Compatibility.

- According to this thought autonomous movement, human action and thinking were grasped as contradiction in a unified way. Grasping contradiction is to decide my attitude at this moment.

- We made a preparatory study for resolution of contradiction of unity. Every action or thought of every person can contribute to the final ideal.

References

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