

# **A Semantic Model of Multiple Space of Role and State ( II )**

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**Abstract:** Language artificially classifies the varied phenomena of the chaotic world into four kinds of expressions: “real displacements”, “real shifts”, “virtual displacements” and “virtual shifts”. This paper is mainly a semantic exploration of the “real displacements” and the achievement of the discussion is a foundation for the semantic study of the latter three kinds of expressions. Emphasis will be laid upon the verbs and their relationship with nouns. The “multiple space role-state-ring-chain” model designed in the paper is aimed at delving beneath the surface of a verb and studying its inner micro-world, so as to grasp the transformational rules among the surface, deep and underlying structures of a sentence and to promote the discovery of the mystery of human languages.

**Key words:** role, state, ring, chain, space, real entity, displacements

### **3. Ring**

#### **3.1. Definition and conditions**

A simple motion process is one Role-State's Ring, which is called a “Ring” for short. (Huang Ziyou, 1985, 1994). Note: A Ring does not contain an ERGATIVE. If there is an ERGATIVE in a Ring, the Ring becomes a Chain.

The nature will realize a Ring, if the Roles and the States themselves and their coordination conform to the specific physical, chemical, physiological and psychological conditions; otherwise the Ring cannot begin or is given up halfway.

It is normally impossible that a simple sentence which we speak can realize the whole process or all stages of a Ring, but the synthesis of all related simple sentences can realize them.

The move-Ring is the most basic and the simplest motion unit, which is the foundation and basis for describing all the dynamics of the more complex verbs.

Ex 83 expressing dynamic “move” briefly shows what is required to realize a Ring in terms of specific physical, chemical, physiological and psychological conditions.

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### *A Semantic Model of Multiple Space of Role and State ( II)*

(83) Xiǎo Wáng cóng jiàoshi zǒu dào le sùshè.

Xiao Wang from classroom walk arrive -ed dormitory

(小王从教室走到了宿舍。 / Xiao Wang walked into the dormitory from the classroom. )

Besides, the dynamic “walk” is essentially the “movement” of the human body.

At nine o'clock in the evening, healthy Xiao Wang is in the classroom. The classroom can hold Xiao Wang. Xiao Wang can be separated from the classroom. At 9:10, Xiao Wang goes out of the classroom. The classroom door is open. The door can open. The entrance to the classroom is larger than Xiao Wang's body. Xiao Wang passes through the corridor, and walks along the Meihua road. The corridor and the Meihua road can accommodate Xiao Wang. Their width is larger than that of Xiao Wang's body. At 9:15, Xiao Wang arrives at his dormitory. The dormitory's door opens or can open. The entry of the door is larger than Xiao Wang's body. The dormitory can accommodate Xiao Wang. Xiao Wang can be separated from the dormitory. In this time, at this moment, Xiao Wang is already in the dormitory.

If there is one Role or one State that cannot satisfy the specific physical, chemical, physiological and psychological conditions of the Ring in the move-Ring “walk”, then the Ring cannot be realized.

For example, if the classroom door has been locked, Xiao Wang does not have the key, and according to the school regulation the students are not permitted to climb over the window, the Departure Role and the MOVER departure state could not be realized. Certainly, the following space roles and states could not be completed.

For example, if the surface of Meihua road leaks all of a sudden and Xiao Wang falls into the pit with his leg badly injured, the Way Role and the MOVER way state cannot be completed.

As in another example, the dormitory catches fire when Xiao Wang is in and he escapes from the dormitory rapidly. Since Xiao Wang is not in the dormitory any longer, the Terminal Role and the MOVER terminal state cannot be completed.

#### **3.2. Relationship between the MOVER and the ERGATIVE in a ring**

We may classify a Ring from different aspects (3.2.-3.6.). According to the relationship between the MOVER and the ERGATIVE in a Ring, the Ring can be classified into 2 types – the Internal Ring and the External Ring.

##### **3.2.1. Internal rings**

The Internal Ring refers to the Ring in which there is one or a multiple internal Mover. The internal Mover can be classified into 2 kinds – the Full Internal Ring and the Partial

Internal Ring.

A. Full Internal Rings The Full Internal Ring refers to the Ring in which there is a full internal Mover(s). Such as in Ex 84, “he” is the ERGATIVE and “body” is the full internal MOVER. The ERGATIVE = the full internal MOVER. The phrase “turn one’s body (back)” is a Full Internal Ring.

B. Partial Internal Rings The Partial Internal Ring refers to the Ring in which there is a partial internal Mover(s). Such as in Ex 85, “she” is the ERGATIVE and “face” is the partial internal MOVER. The ERGATIVE  $\in$  the partial internal MOVER. The phrase “turn one’s face” is a partial Internal Ring.

(84) tā zhuǎn shēn duizhe qiáng.

he turn body towards wall

(他转身对着墙。/ He turned (his back) to the wall.)

(85) tā bùhǎoyisī de zhuǎn guò liǎn qù.

she embarrassment Ptc-adverbial turn away face away

(她不好意思地转过脸去。/ She turned (her face) away in embarrassment.)

### 3.2.2. External rings

The External Ring refers to the Ring in which there is the External Mover(s). Such as in Ex 86, “he” is the ERGATIVE and “ball” is the External MOVER, so the phrase “throw a ball” is an External Ring.

(86) tā bǎ qiú pāo gěi-le tāde mèimei.

he Pre-O ball throw give-ed his younger-sister

(他把球抛给他的妹妹。/ He threw the ball to his sister.)

### 3.3. Inter-ring’s liaison

Except for the “move-Ring”, all dynamics are the complex dynamics of verbs which contain at least two Rings.

As a result of the various complexity, the most complex dynamics of verbs possibly consists of tens or hundreds of thousands of Rings. Therefore, it is necessary to carry out the classification of the Inter-Ring Liaison. These Rings can be classified into the time order and the transformation.

The time order is the most important aspect of the classification of the Inter-Ring Liaison, in that the motion is the time vector. Accordingly, the time order may be divided into 2 kinds – (1) relations of the priority and (2) relations of the simultaneousness.

### 3.4. Relations of the priority

It refers to the temporal or logical priority among certain Rings in a dynamic.

#### 3.4.1. Preceding rings and descendant rings

The two Rings are classified as Preceding Ring and Descendant Ring based on temporal relations. As in Ex 87, the process of “write” contains 7 Rings which are ordered in priority.

1<sup>st</sup> Ring: Lao Li stretches out his right hand to the pen-holder → 2<sup>nd</sup> Ring: opens his right hand's five fingers under the pen-holder → 3<sup>rd</sup> Ring: draws back his right hand's five fingers between the pen-holder and the tabletop → 4<sup>th</sup> Ring: holds the pen-holder with his right hand's five fingers correctly → 5<sup>th</sup> Ring: moves the end of the nib down on the surface of the paper → 6<sup>th</sup> Ring: according to the strokes and typefaces, moves the pen-holder and the nib → 7<sup>th</sup> Ring: the ink flows out from the nib onto the paper, and the orderly traces (Chinese characters) are produced.

(87) Lǎo Lǐ zài xiě zì.

Lao Li be -ing write characters

(老李在写字。/ Lao Li is writing (Chinese) characters.)

#### 3.4.2. Causal rings and resultant rings

The two Rings by the logical relations of the priority are the Causal Ring and the Resultant Ring.

The Causal Ring is the Preceding Ring that causes the Descendant Ring to produce significant result (movement or shift).

The Resultant Ring is the Descendant Ring that produces significant result under the influence of the Causal Ring.

As in Ex 87, the dynamic “write” contains 7 Rings. The first 4 Rings in which Lao Li holds the pen-holder are the Causal Rings. The 5<sup>th</sup> Ring where the nib touches the paper is the Resultant Ring. The 5<sup>th</sup> Ring is further transformed into the Causal Ring.

The last 2 Rings where the pen moves and the characters are written are the Resultant Rings.

#### 3.4.3. Initial rings and terminated rings

In several orderly Rings of the complicated dynamics, the two Rings in the two boundary positions are called the Initial Ring and the Terminated Ring separately.

The Initial Ring is a Ring in which the ERGATIVE gives motion to the 1<sup>st</sup> MOVER firstly.

If the ERGATIVE and the 1<sup>st</sup> MOVER are the same Animal, particularly the same human, the Initial Ring must be the Internal Ring.

The Terminated Ring is the Ring where a motion is finished finally. As in Ex 87, in the 7

Rings of the dynamic “write”, the 1<sup>st</sup> Ring is the Initial Ring, and the 7<sup>th</sup> Ring is the Terminated Ring.

#### 3.4.4. Initial rings and terminated rings

Based on the understanding, all Rings being related in terms of priority can be divided into Primary Rings and Secondary Rings.

The Primary Ring is the Key Ring which becomes the understandable clue, and in which the people use the overt words and expressions in the surface sentence which is formed from the pattern “the ERGATIVE subject + verb + the MOVER object”.

Such as in Ex 87, the 7<sup>th</sup> Ring is the Primary Ring – “the ERGATIVE Subject *Lao Li* + verb *writes* + the MOVER Object *characters*”.

The Secondary Ring is the Ring with the covert words and expressions in the surface sentence, which however surely exist in the underlying cognition as well. Such as in Ex 87, the 1<sup>st</sup>–7<sup>th</sup> Rings are the Secondary Rings with the covert words and expressions.

In the following Ex 88, the phrase “wield (fine long) hair” belongs to the 5<sup>th</sup> Ring and the 6<sup>th</sup> Ring of the dynamic “write”, and ordinarily the two Rings are the Secondary Rings. But the phrase does not express this pure action “verb *wield* + object (*fine long*) *hair*”. The phrase is an idiomatic expression, the meaning of which is only “write characters”. Therefore, the 5<sup>th</sup> Ring and the 6<sup>th</sup> Ring of the dynamic “write” become the Primary Rings.

- (88) Lǎo Lǐ zài huī háo<sup>①</sup>  
Lao Li be -ing wield (fine long) hair  
(老李在挥毫。 / Lao Li is writing (Chinese) characters.)

#### 3.5. Relations of the simultaneousness

The several Rings of a dynamic designed on the Relations of the Priority are the focus Rings based on which people understand this dynamic. The other Rings which roughly synchronize with the focus Rings are called the Concurrent Rings, which have the Relations of the Simultaneousness.

Take the dynamic “write” as the example again. There are several Concurrent Rings in the 7 Rings of the dynamic “write”.

The Concurrent Ring of the 1<sup>st</sup> Ring: Lao Li must also stretch out the right arm. The Concurrent Ring of the 3<sup>rd</sup> Ring: By now, the pen is in his right palm. The Concurrent Ring of the 4<sup>th</sup> Ring: The pen is in his right hand's five fingers. The Concurrent Ring of the 5<sup>th</sup> Ring: The pen-holder raises up; Lao Li still grasps the pen-holder with his right fingers; at

<sup>①</sup> Here the Chinese character “háo(毫)” means a Chinese writing brush made of goat hair or weasel hair.

### *A Semantic Model of Multiple Space of Role and State ( II)*

the same time, Lao Li moves his right arm and holds the arm above the paper. The Concurrent Ring of the 6<sup>th</sup> Ring: His right hand and his right arm act in coordination with the pen. The Concurrent Ring of the 7<sup>th</sup> Ring (1): His right hand and his right arm still act in coordination with the pen. The Concurrent Ring of the 7<sup>th</sup> Ring (2): The ink in the refill or in the ink stone is consumed gradually.

However there is the different length of the Concurrent Rings. A short Concurrent Ring may be covered with a long Concurrent Ring. Apart from the consecutive actions of the hand, the dynamic “write” has the long concurrent Rings, such as: Lao Li bows his head a little to look at the paper, and presses on the paper with his left hand, while writing the characters, etc.

#### 3.6. Transformed rings

According to the transferability of the Roles, the Inter-Ring’s Liaison can be subdivided into 2 kinds: (1) the same-Roles maintenance and (2) the different-Roles transformation.

The same-Roles maintenance means when the preceding Ring is transformed into the descendant Ring, the Role in the preceding Ring and the Role in the descendant Ring both of which are co-reference maintain the same-type Roles. The descendant Ring is called the same-Role transformed Ring.

The different-Roles transformation is when the preceding Ring is transformed into the descendant Ring, the Role in the preceding Ring and the Role in the descendant Ring both of which are co-reference have different-type Roles. The descendant Ring is called the different-Role transformed Ring. For example, the MOVER Role is transformed into one of the Space Roles or one of the Space Roles is transformed into the MOVER Role.

Take the dynamic “write” as the example again.

The main transferences<sup>①</sup> of the 7 focus Rings and the related Concurrent Rings of the dynamic “write” are shown in the following:

The internal Mover in the Initial Ring is Lao Li’s right hand. The transference from the 1<sup>st</sup> Ring to the 2<sup>nd</sup> Ring belongs to the different-Roles transformation. His right hand is transferred from the internal Mover into the Space Role (i.e., his right hand is the Terminal Role of his five fingers). The transference from the 2<sup>nd</sup> Ring to the 3<sup>rd</sup> Ring belongs to the same-Rings maintenance. His right hand’s five fingers are still the internal Mover. The transference from the 3<sup>rd</sup> Ring to the 4<sup>th</sup> Ring belongs to the different-Rings transformation. His right hand’s five fingers are transferred from the internal Mover into the Space Role (i.e., his right hand’s five fingers are the Terminal Role of the pen-holder ), and the pen is

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<sup>①</sup> We must begin from the transference of the internal Mover in the Initial Ring.

transferred from the Terminal Role of his right hand's five fingers into the external Mover. The transference from the 4<sup>th</sup> Ring to the 5<sup>th</sup> Ring belongs to the same-Rings maintenance. The pen is still the external Mover. The transference from the 5<sup>th</sup> Ring to the 6<sup>th</sup> Ring belongs to the same-Rings maintenance. The pen is still the external Mover. The transference from the 6<sup>th</sup> Ring to the 7<sup>th</sup> Ring belongs to the different -Rings transformation. The pen is transferred from the external Mover into the Space Role (i.e., the refill of the pen is the Terminal Role of the ink), and the ink is transferred into the external Mover.

#### 4. Chain

##### 4.1. Definition

The ERGATIVE imposes power on the MOVER to cause it to move and produce a combination of several related Rings. The combination of these Rings is called the Role-State-Ring's Chain, which is called a "Chain" for short. (Huang Ziyou, 1985, 1994) A Chain is a dynamic of a verb (i.e., a particular meaning item of a verb) in the surface structure of a particular language. But the dynamic must be a combination of several related Rings. Take Chinese language as an example, these following dynamics of verbs are not the Chains:

A. The dynamic "move" and the other dynamics like "move" which are idiomatic expressions, any each of which contains a verb with its fixed object and indicates an individual action on one occasion only, such as "jǔ + shǒu (举手, raise + hand / raise one's hand)", "shēn + shǒu (伸手, stretch out + hand / stretch out one's hand)", "tái + tóu (抬头, raise + head / raise one's head)", "niǔ + tóu (扭头, turn away + head / turn one's head away)", "bì + yǎn (闭眼, shut + eyes / shut one's eyes)", "zhēng + yǎn (睁眼, open + eyes / open one's eyes)", "shēn + shé tou (伸舌头, put out + tongue / put out one's tongue)", "juē + zuǐ (撅嘴, pout + mouth / pout one's lips)", "qiào + wěi ba (翘尾巴, stick up + tail / stick up the tail)", "shù + dà mǔ zhǐ (竖大拇指, hold up + thumb / hold up one's thumb)", "tǐng + xiōng (挺胸, throw out + chest / throw out one's chest)", "shōu + fù (收腹, suck in + stomach / suck in one's stomach)", "tī + tuǐ (踢腿, kick + leg / kick one's leg)", "zhuǎn + shēn (转身, turn + body / turn one's back)" etc.

B. The dynamics, any of which expresses a special State in a Ring, such as "lí kāi (离开, leave)" (MOVER departure state), "tōng guò (通过, pass)" (MOVER way state), "dào dá (到达, arrive)" (MOVER arrival state), and "lái (来, come)" (MOVER goal state), "qù (去, go)" (MOVER goal state), "jìn (进, enter)" (MOVER arrival state), "chū (出, exit)" (MOVER departure state) etc.

### *A Semantic Model of Multiple Space of Role and State (II)*

The dynamics of the other verbs belong to the Chains. The chains differ in characters from language to language and dialect to dialect. The dynamics of most verbs have the corresponding word forms in many languages or dialects. For example, the Chinese verbs “zǒu” (走), “pǎo” (跑), “xiě” (写), “gěi” (给) and so on correspond to the English verbs “walk”, “run”, “write”, “give” and so on. But there is also the following kind of phenomenon:

We must translate a verb which is a simple word in one language or dialect into a compound word, a phrase, or even a sentence in another language or dialect. For example the Chinese verb “kàn” (看) corresponds to the English compound word “look at” (a verb + a preposition “at”). Another example is the English verb “sprout” which corresponds to the Chinese compound word “fā-yá” (发芽, produce-bud) or “chōu-yá” (抽芽, draw-bud), where the internal structure is the verb-object structure (a dynamic + a theme Role). Moreover, the verb “sprout” is also a verb-object structure (a dynamic + a theme Role) in the concept of the English or the American, as the definition of the verb “sprout” is “to produce new leaves or buds” in “The Oxford Advanced Learner’s English-Chinese Dictionary”.

#### 4.2. Complex rank of the chain

The complex rank of the Chain is a fuzzy concept, and it is difficult to know how many levels the rank must be divided into. However it is advantageous to have a few levels.

The world was originally a unified whole in chaos. The animal's five sense organs initially divided the whole world into five worlds of sensation. Namely, the world of the visual sense, the world of the hearing sense, the world of the smell sense, the world of the taste sense and the world of the touch sense, the most important of which is the world of the visual sense. But the five worlds of feeling are still a unified whole in chaos.

The humanity is rich in its wisdom, and has the world of consciousness. Also the world of consciousness is still a unified whole in chaos.

The humanity has created language, and has a language world. The language world is a true sublimation and a high-quality materializing of the world of perception (including sensations and consciousness). Language and writing which records language became the only foundation of the human culture and progress.

The language world may be subdivided into several kinds of small worlds which are the noun world, the predicate world and the sentence world.

The noun world is segmented into 2 smaller worlds – (1) the initial Entity World and (2) the derived Virtual World.



### *Huang Ziyou*

The predicate world is segmented into 2 smaller worlds – (1) the initial Displacement World and (2) the derived Shift World.

The sentence world is segmented into 4 smaller worlds – (1) the initial Real Displacement World, (2) the derived Real Shift World, (3) the derived Virtual Displacement World and (4) the derived Virtual Shift World.

The human language world is an artificial world, and the worlds of the human perceptions are artificially separated worlds and artificially abstracted worlds from those of the human language. Some separated and abstracted concepts are very simple, but some are very complex.

Basically, people may use the language itself to illustrate some expressions of the separated and abstracted concepts clearly, namely they can use the linguistical semantic theory to analyze these expressions (e.g. the Real Displacement expressions) scientifically and clearly. Other expressions of the separated and abstracted concepts may never be illustrated by the language itself, namely they cannot be analyzed by the linguistical semantic theory either scientifically or clearly. People must make massive supplements with the aid of the tacit worlds of perception.

The above designed Roles, the States and the Rings basically belong to the purer initial Real Displacement expressions and some derivational Real Shift expressions which may be illustrated with language itself scientifically and clearly. The derivational complex Real Shift expressions, the derivational Virtual Displacement expressions and the derivational Virtual Shift expressions are the metaphors and the metonymy for the initial Real Displacement expressions, and it is difficult to illustrate them with language itself either scientifically or clearly. The Chains on which we elaborate next are also within the scope of the Entity Displacement expressions and some derivational Real Shift expressions. The Chains of the Entity Displacement and some derived Real Shift expressions may be subdivided into 4 levels approximately:

#### 4.2.1. Primary-level chain

A primary-level Chain is formed from a dynamic indicating a fundamental motion (i.e., a *therblig*) of the individual.

It is constituted of several move-Rings. Take a look at the following example:

(89) Xiǎo Zhāng bǎ jiàngzhī jiāo zài miànshí shàng.

Xiao Zhang Pre-O sauce pour in wheaten food surface

(小张把酱汁浇在面食上。/ Xiao Zhang poured the sauce over the pasta.)

#### 4.2.2. Middle-level chain

### *A Semantic Model of Multiple Space of Role and State ( II)*

A middle-level Chain is formed from a dynamic indicating a group of fundamental motions of the individual(s), i.e., a mini-activity of the individual(s). It is constituted of several fundamental motions (sometimes plus the move-Ring(s)). It is the recursive use of the primary-level Chain and the move-Ring, which is constituted of tens of move-Rings. See the following example:

- (90) Zhè-dòng biéshù yī zhōu dǎsǎo liǎng-ci.  
this-CL villa one week clean two-CL  
(这栋别墅一周打扫两次。/ The villa is cleaned twice a week.)

#### 4.2.3. High-level chain

A high-level Chain is formed from a dynamic indicating a mid-activity of the individual(s). It is constituted of several mini-activities (sometimes plus the fundamental motion(s)). It is the recursive use of the mid-level Chain and the primary-level Chain, which is constituted of hundreds of move-Rings. Consider the following example:

- (91) Mótuōchēshǒu sài mótuōchē.  
Motorcyclists race motorcycles  
(摩托车手赛摩托车。/ The motorcyclists race motorcycles.)

#### 4.2.4. Super-level chain

A super-level Chain is formed from a dynamic indicating a macro-activity of the individual(s). It is constituted of several mid-activities (sometimes plus the group(s) of fundamental motions). It is the recursive use of the high-level Chain and the middle-level Chain, which is constituted of tens of thousands of move-Rings or countless move-Rings. See the following example:

- (92) Tāmen zhèngzài zào yǔzhòu- fēi- chuán.  
they be-ing make cosmos - fly - boat  
(他们正在造宇宙飞船。/ They are making a spacecraft.)

### 4.3. Expressions of the chain in the surface utterances

#### 4.3.1. Understanding clue

People speak mainly for transmitting information, making it possible to fulfill further tasks. Therefore each utterance has a specific goal of human intercommunication. A Chain is a complex concept or idea. In daily human intercommunication, a simple sentence containing a Chain represented by a dynamic of a verb often has large numbers of Rings in the underlying structure.

Take the following sentence: “Xiǎo Zhāng zhǔ fàn. / Xiao Zhang boils the rice.” in Ex 93. The boil (rice)-Chain has a large number of Rings, each of which surely has many entities

*Huang Ziyou*

represented by the entity Roles and the space Roles, and therefore the entire Chain has a large numbers of entities.

However, if someone must say a dozen, several dozens, over a hundred or even tens of thousands of nouns indicating the entities to finish a simple sentence, it will be impossible for people to communicate with each other.

Therefore, the speaker selects a dynamic with 1-3 representative nouns indicating the Roles to compose a simple sentence frequently, which is regarded as the understanding clue of a large number of Rings, entity Roles and the space Roles. Based on the understanding clue and the specific goal of the human intercommunication, the listener can rely on his knowledge and his experience to understand the simple sentence comprehensively. Furthermore, if necessary, the speaker and the listener can use many simple sentences to express the details of this chain one by one, or can do many things step by step according to the details of this chain. For example:

- (93) Xiǎo Zhāng zhǔ fàn.  
Xiao Zhang boil cooked rice.  
(小张煮饭。/ Xiao Zhang boils the rice)

The dynamic “zhǔ (煮, boil)” belongs to the mid-level Chain. In the Chinese modern city life, the entities which the dynamic “zhǔ (boil)-Chain” involves display mainly as follows:

Xiao Zhang (the ERGATIVE), cooked rice (the Metamorphosis Role in the Terminated Ring and the Resultant Ring), Rice cooker (the covert Role, similarly hereinafter), pot cover, rice, running water, gas pipe, coal gas, stove, igniter, kitchen, exhaust device, electric appliance equipment, Xiao Zhang body's clothes, Xiao Zhang's arms, Xiao Zhang's hands, Xiao Zhang's fingers, Xiao Zhang's eyes and so on.

In order to complete the dynamic “boil rice”, people must complete the dynamic “wash rice” and the dynamic “heat rice”, each of which must be expressed with many other simple sentences, each of which must contain a simpler dynamic (i.e., sub-Chain).

As an example, there are mainly the following simple sentences to express the dynamic “wash rice”:

Xiao Zhang walks right in front of the rice cooker, takes up the rice cooker, removes the pot cover, reaches the rice bag, opens the rice bag, takes up the small cup, scoops out the rice from the bag, pours the rice into the rice cooker, goes to the tap, puts the uncovered rice cooker under the tap, turns the tap on, lets the water flow into the rice cooker, waits till the water rises above the rice, turns the tap off, agitates the rice in the water with one hand, pours the water in which the rice is soaking out of the rice cooker, filters out the sand, the

### *A Semantic Model of Multiple Space of Role and State ( II)*

barnyard millet, turns the tap on again, ... until all the extraneous matter is filtered out from the rice, turns on the water tap, puts the right amount of water into the rice cooker, covers the rice cooker.

Each of the above steps is indispensable.

For example, if the water supply is cut off, then Xiao Zhang cannot wash the rice; if the power supply or the coal gas supply is cut off, then Xiao Zhang cannot light a fire; if the rice is eaten up, then Xiao Zhang must go shopping, and so on.

To express all the meanings, however, people only need use three words in Chinese – the dynamic “zhǔ”, the entity “Xiǎo Zhāng”, and the entity “fàn”.

As seen from the example, to truly understand this sentence composed of three words, people must have enough knowledge and experience, so the children and the adults who have never boiled (cooked) rice cannot understand or cannot entirely understand this daily sentence.

#### 4.3.2. Verb-object structure

In a sentence, the most representative understanding clue is the combination of the dynamic plus the Theme Role (Huang Ziyou, 2007) – the combination is often the verb-object structure which is the key clue of the understanding clue, because the types and the complex rank of the Theme Role to refer will immediately produce an effect on the types and the complex rank of the dynamic.

Please note the following example: the Chinese verb “shēng” (生) has three types of dynamics, owing to three different objects:

(94) a. Zhāng Huá shēng ...

(张华生……。)

b. Zhāng Huá shēng háizi.

Zhang Hua bear child

(张华生孩子。/ Zhang Hua has borne a child.)

c. Zhāng Huá shēng lúzi.

Zhang Hua light stove

(张华生炉子。/ Zhang Hua has lit a stove.)

d. Zhāng Huá shēng bìng.

Zhang Hua contract illness

(张华生病。/ Zhang Hua has contracted an illness.)

In Ex 94b, the Chinese verb “shēng” expresses that a person bears an offspring. In Ex 94c, the Chinese verb “shēng” expresses that a person kindles fire. In Ex 94d, the Chinese verb

*Huang Ziyou*

“shēng” expresses that a person is in a non-healthy condition.

Please note the following example: the Chinese verb “xiě” (写) has three types of complex ranks, owing to three different objects:

- (95) a. Zhāng Huá xiě...  
Zhang Hua write  
(张华写.....)
- b. Zhāng Huá xiě zì.  
Zhang Hua write (Chinese) character  
(张华写字。/ Zhang Hua writes (Chinese) character(s).)
- c. Zhāng Huá xiě xìn.  
Zhang Hua write letter (mail)  
(张华写信。/ Zhang Hua writes the letter(s).)
- d. Zhāng Huá xiě shū.  
Zhang Hua write book  
(张华写书。/ Zhang Hua writes a book.)

In Ex 95b, the Chinese verb “xiě” expresses a simple behavior. In Ex 95c, the Chinese verb “xiě” expresses a slightly complex behavior. It is only a behavior that includes many repetitions of the simple behavior “xiě zì”, and contains a few matters related to the letter (mail). In Ex 95d, the Chinese verb “xiě” expresses a very complex behavior. It only includes numerous repetitions of the simple behavior “xiě zì”, and contains many activities related to writing a book.

#### 4.3.3. Synonymous expressions

There are 3 methods to express an identical Chain. The three expressions are basically synonymous. The analysis of the synonymous expressions indicates that our analysis of “Role-State-Ring-Chain” is scientific and usable.

A. The Brief Expressions Using a brief expression means only using a simple sentence (1-3 words) to express the understanding clue. The understanding clue is often one or a few of the many Rings in the Chain, i.e. the Primary Ring(s). We may take the following examples as illustration:

- (96) 《Sān Cāng》 yǐ shā-qīng.  
“Three Cang’s” have -ed kill-green  
(《三苍》已杀青。/ “Three Cang’s” has been finalized.)

During ancient times in China, people used Bamboo slips for writing (the same as modern paper). The process of use is more complex than the process of using paper. In Ex

*A Semantic Model of Multiple Space of Role and State ( II)*

96, the behavior “shā-qīng (strip the covering off a green bamboo)” in the process is the important Ring that indicates a finalized manuscript.

- (97) Lǎo Lǐ zǎi qiāo jiànpán.  
Lao Li be-ing knock keyboard  
(老李在敲键盘。 / Lao Li is typing on the keyboard.)

Modern electronic writing uses keyboard typing, scanning, photocopying etc. In Ex 97, “qiāo jiànpán” is the important Ring in the process of electronic writing.

- (98) Lǎo Lǐ dāng zhòng huī háo.  
Lao Li to sb's face many people wield (fine long)hair  
(老李当众挥毫。 / Lao Li is wielding a brush in public.)

Ex 98 indicates that in the old times, the Chinese people had to use a writing brush to write Chinese characters.

- (99) Lǎo Lǐ zǎi pá gézi.  
Lao Li be-ing crawl squared paper  
(老李在爬格子。 / Lao Li is crawling over the squared paper. )

Ex 99 indicates that in the old times, the Chinese people had to write Chinese characters on squared paper.

- (100) Zhè shì Lǎo Lǐ de shǒu-shū.  
this be Lao Li Pcl-of hand-write  
(这是老李的手书。 / This is Lao Li's handwriting. )

Ex 100 indicates that people must use their hand to write the characters or words.

- (101) Zhè shì Lǎo Lǐ de shǒu-gǎo.  
this be Lao Li Pcl-of hand-draft  
(这是老李的手稿。 / This is Lao Li's original manuscript.)

Ex 101 also indicates that people must use their hand to write the characters or words.

- (102) Zhè shì yībù shǒu-chāo - běn.  
this be one-Cl hand-to copy-book  
(这是一部手抄本。 / This is a hand-written copy. )

Ex 102 also indicates that people must use their hand to write the characters or words.

- (103) Zhè shì Lǔ Xùn de shǒu-jī.  
this be Lu Xun Pcl-of hand-trace  
(这是鲁迅的手迹。 / This is Lu Xun's original handwriting.)

Ex 103 also indicates that people must use their hand to write the characters or words.

- (104) Zhè shì míngjiā mò-bǎo.  
this be Mingjia mo-bao

*Huang Ziyou*

this be famous expert ink-treasures  
(这是名家墨宝。 / These are the master's treasured scrolls of calligraphy.)

Ex 104 indicates that people must use ink to write the characters or words.

(105) Zhè shì wǒ lǎoshī de mò-jī.  
this be my teacher Pcl-of ink-trace  
(这是我老师的墨迹。 / This is my teacher's writing.)

Ex 105 also indicates that people must use ink to write the characters or words.

(106) Zhè wánquán shì zhǐ - shàng - tán - bīng.  
this entirely be paper-on the top of- discuss - military affairs  
(这完全是纸上谈兵。 / You are being an armchair strategist.)

Ex 106 indicates that people must write on paper (in Chinese, the phrase “to be an armchair strategist” translates into “to discuss military affairs on paper”).

(107) Nà shì zì - zhǐ - lǒu.  
that be characters- paper-basket  
(那是字纸篓。 / That is a wastepaper basket.)

Ex 107 indicates that people must write the characters or words on paper. The result of writing is the characters or words which are concurrently in both the Terminated Ring and the Resultant Ring.

The main Rings in the “write-Chain” involve the pen. For example “bǐ-chù (笔触, pen-touch / the brushwork)”, “bǐ-dá (笔答, pen-answer / answer questions in writing)”, “bǐ-duān (笔端, pen-end / the tip of the brush or the style of writing)”, “bǐ-fá (笔伐, pen-cut down / attack in writing)”, “bǐ-fēng (笔锋, pen-cutting edge of a knife, etc. / tip of the brush or the vigor of style in writing)”, “bǐ-gǎnzi (笔杆子, pen-rod / the pen-holder or the pen)”, “bǐ-gēng (笔耕, pen-plough / earn a living by pen)”, “bǐ-jì (笔记, pen-write down / the note)”, “bǐ-lì (笔力, pen-force / vigor of strokes in calligraphy or vigor of style in literature composition)”, “bǐ-lù (笔录, pen-record / the record)”, “bǐ-mò (笔墨, pen-ink / pen and ink, or words)”, “bǐ-shì (笔试, pen-examination / the written examination)”, “bǐ-tán (笔谈, pen-talk / the conversation by writing)”, “bǐ-yì (笔译, pen-translation / the written translation)”, “bǐ-yǒu (笔友, pen-friend / the pen friend or the pen pal)”, “bǐ-zhě (笔者, pen-person or thing (as a suffix of a noun) / the author or writer)”, “bǐ-zhèng (笔政, pen-affairs / the editorial affairs)”, “dài-bǐ (代笔, act on behalf of – pen / write on another's behalf)”, “dāo-bǐ-li (刀笔吏, knife-pen-official / the petty official who writes legal forms)”, “gē-bǐ (搁笔, put aside-pen / stop writing)”, “qīn-bǐ-xìn (亲笔信, personal-pen-letter / an autograph letter or a personal letter)”, “tóu-bǐ-cóng-róng (投笔从戎, throw aside

### *A Semantic Model of Multiple Space of Role and State (II)*

-pen-follow-weaponry or arms / give up the pen for the sword”, “wén-bǐ ( 文 笔 , writing-pen / the style)”, “zhí-bǐ ( 执 笔 , hold-pen / do the actual writing)” and so on.

B. The Detailed Expressions Using a detailed expression namely means expressing a Chain's meaning in detail with numerous simple sentences. As in Ex 87, the process of the primary-level Chain (the theblig) “write” contains 7 Rings in detail.

C. The Medium Expression Using the medium expression namely means expressing a Chain's important meaning without too many simple sentences. As in Ex 93, we express the “zhǔ (boil)-Chain” with many simple sentences. It belongs to the slightly detailed medium expression. A Chain may also be expressed in 2-3 or 3-5 simple sentences which belong to the simpler medium expression (in the following Ex 109). The simple sentences are not too numerous, and therefore saying them does not hinder the human intercommunication.

The dynamic “jǔ ( 举 , raise)-Chain” (a brief expression) in Ex 108 may be expressed by 4 simple sentences in Ex 109:

(108) Wǒ jǔ-qǐ-le bēi.

I raise-up-ed glass

(我举起了杯。 / I have raised my glass.)

(109) Wǒ shēn-guò shǒu qù, ná-qǐ zhuō-shang de bēizi, jǐnjǐn zhuā zài

I stretch-pass hand go, take-up table-surface Pcl-of cup, tightly grasp in  
shǒu-li, ránhòu jǔ-le qǐlai.

hand-inside, then raise-ed up

(我伸过手去, 拿起桌上的杯子, 紧紧抓在手里, 然后举了起来。 / I put out a hand, took up the cup on the table, grasped it tightly, then lifted it.)

### **5. Conclusion**

This article elaborates the Role-State-Ring-Chain of the Entity Displacement expressions and some derivational Real Shift expressions. Actually, we must assume the heavy responsibilities of the profound exploration of the semantics of the human language. For example, this article has not carried on the analysis of the complex Real Shift expressions, the Virtual Displacement expressions and the Virtual Shift expressions, and the entity and the virtual themselves.

Certainly, with the aid of language, we can briefly illustrate the basic situations, the general clues, and the main instances etc. of the above described three kinds of expressions. Finally, we can understand these expressions with the supplement of human's encyclopedic knowledge. (However, some of these expressions may produce different understanding,



even give rise to controversy).

We will give a brief analysis of the following examples which belong to the three kinds of expressions for the further research of the readers.

- (110) Tā sī-le xìn.  
she tear-ed up letter  
(她撕了信。 / She tore up a letter. )
- (111) Tā xiāo píngguǒ.  
she peel apple  
(她削苹果。 / She peels an apple. )
- (112) zhàdàn bàozhà le.  
Bomb explode Pcl-completion  
(炸弹爆炸了。 / A bomb exploded. )
- (113) Wǒmen yào tígāo sùzhì.  
we must enhance quality (i.e., intrinsic qualification )  
(我们要提高素质。 / We must enhance our quality. )
- (114) “Shàngdi sǐ le.”  
God die Pcl-completion  
(“上帝死了。” (尼采) / “God is dead.” (Friedrich Nietzsche (1844-1900)))

Ex 110 – Ex 112 belong to the Real Shift expressions in which there are two kinds of Roles – (1) the pre-shift objects and (2) the post-shift objects. In Ex 110, the pre-shift object is the intact “xìn (信, letter)”, the post-shift objects is the “xìn which has been torn up” or “the fragments of the xìn”. In Ex 111, the pre-shift object is the intact “píngguǒ (苹果, apple – i.e. apple with the peel)”, and the post-shift objects are the “píngguǒ without the peel” or the “peeled píngguǒ (the edible part)” and the “peel of the píngguǒ (the discarded part)”. Ex 112 belongs to the complex Real Shift expressions. The “zhàdàn (炸弹, bomb)” is only the pre-shift object. After “bàozhà (爆炸, explosion)”, not only the bomb itself becomes many post-shift objects – the shell fragments, but also more importantly, the explosion produces many other post-shift objects – the pits, the collapsed constructions and the casualties etc. It is difficult to describe this situation minutely with the model of the Role-State-Ring-Chain, and the general semantic theories are weak in describing it minutely. Ex 113 belongs to Virtual Displacement expressions. The verb “tígāo (提高, enhance)” is a Displacement-dynamic, and the MOVER “sùzhì (素质, quality)” is the abstract noun belonging to the virtual. What “is the “sùzhì”? People cannot possibly illustrate it clearly. Therefore, what meaning does the phrase “enhance one’s quality” have?

### *A Semantic Model of Multiple Space of Role and State (II)*

It seems inevitable that people cannot illustrate it clearly and thoroughly. Ex 114 belongs to Virtual Shift expressions. Space is concrete, so it is quite easily described, but time is abstract, therefore it is very difficult to describe it clearly and thoroughly. Time cannot be self-perception. People can only measure time in terms of spatial displacement (such as the moving of the sun, the alternation of nights and days etc.).

“Life” and “death” are the abstract shift. It is not only the higher animals that cannot understand them, but also the young children of humans cannot understand them completely. It is especially difficult to make a semantic description of them. Therefore, people use Virtual Displacement expressions frequently, even Real Displacement expressions to express these terms popularly. For example people use “gūgū-zhūi-dì (呱呱坠地, the 1<sup>st</sup> cry of life-drop-land / be born crying)”, “lái dào rén-jīān (来到人间, come into persons-inside / come into the world)”, “huòdé shēngmìng (获得生命, get life / get one’s life)” and so on to express “life”, and use “jiàn shàngdì (见上帝, see God / meet one’s Maker)”, “shàng xī tiān (上西天, go up western heaven / go to Western Paradise)”, “duàn qì (断气, break breath / breathe one’s last breath)”, “zǒu le (走了, go Pcl-completion / pass away)”, “shīqù shēngmìng (失去生命, lose life / lose one’s life)” and so on to express “death”. The ERGATIVE “Shàngdì (上帝, God)” is an abstract noun belonging to the virtual. What is God? It is extremely difficult for people to adequately expound it. Therefore, the meaning of the sentence “God is dead.” is often not understood, and the “death” Nietzsche refers to is often misconceived to be physical, rather than metaphorical, as Nietzsche originally intended it to be.

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