The Analysis of the structural motivation of Oracle bone inscriptions from the perspective of Pierce Semiotics

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Abstract

American philosopher Peirce proposed the "trinity" structure of symbols, dividing symbols into "image symbol" and "symbol", which are based on "motivation". Oracle bone inscriptions basically belong to "motivation symbol", that is, the logical correlation between the sign (font) and the object (meaning), that is, the reason for creating characters and the basis for the formation of meaning. This paper uses Pierce's semiotics theory to analyze the motivation of oracle bone sign configuration.

Key words: *Oracle; Motivation; Image symbol; symbol.*

1. Introduction

It is generally believed that semiotics in the sense of real independent discipline was born at the end of 19th century and the beginning of 20th century, founded by Swiss linguist Saussure and American philosopher Peirce. Saussure and Peirce almost simultaneously and independently constructed their own semiotic systems, which developed into two basic schools of thought of modern semiotics. As ideographic Chinese characters, the character of oracle bone characters is quite different from that of the phonetic symbols proposed by Saussure, but it conforms to the "trinity" structure principle of symbols proposed by Peirce and has the characteristics of "motivation".

2. Semiotics

2.1 Pierce's Semiotics: the relationship of motivation between sign and object

In contrast to Saussure's dichotomy, Peirce proposed a "trinity" structure of signs: "A sign is anything associated with a second thing, its object; To relate the third thing, its meaning, in this way to the first object in a qualitative way." (Pierce, 2014, P114). Peirce emphasizes that meaning is not directly subordinate to sign, and the complete signifying process of sign involves the ternary relation of "sign", "object" and "explanatory item". "A sign, as an object, has a relation to its object in one respect, and to an interpretation in the other, so that the relation between the interpretation and the object corresponds to its own relation to the object." (Pierce, 2012, P167). In this construction, the signifier of a symbol is called a sign or a "representamcn." The signified is divided into two parts: "object" and "interpretant".

"Signifier" is Saussure's "signifier", that is, the symbolic carrier used to refer to. "Object" is what the sign intends to actively express, that is, the direct target of the signifier, or the signifier

The explicit content of the process. The "object" associated with the signifier is not necessarily the real thing, but the conceptual content about any thing and its nature, function and state. "This sign represents something, its object. It represents that object, but not in all respects, but only in relation to an idea." (Pierce, 2006, P277). "Explanatory item" refers to the thought or meaning caused or created by the interpreted or the symbol receiver in the process of symbol interpretation. There is a hint or extension relationship between it and "object", and "object" can often serve as the starting point of meaning extension of "explanatory item". That is to say, "object" is the inherent signified which the creator of symbol intends to express directly, while "explanatory item" is the open meaning content produced in the interpretive behavior of the symbol recipient. The proposal of "explanatory item" reflects the openness of Pierce's semiotics.

Based on "motivation", Peirce's semiotic system corrects Saussure's judgment on the nature of "arbitrariness" of signs and emphasizes the inevitable relationship between signs and objects. According to the different relationship between the symbol and the object, Pierce divided the symbol into three types: "image symbol", "symbol" and "convention symbol". The "image symbol" is formed by mimicking the external features of the reproducing object, and has some image relation with the object. "Symbol" is formed by the inherent connection with the object, and there is some space-time or logical connection with the object. "Convention symbol" has no necessary relation with the object, and is basically "arbitrary" symbol established by artificial convention. Since both "image symbol" and "symbol" proposed by Pierce have certain "motivation", we can call them together "motivation symbol".

2.2 Semiotic properties of oracle bone inscriptions: motivational symbols

Peirce's semiotic theory has important enlightenment and guiding significance for understanding the nature and characteristics of oracle bone inscriptions. As ideographic Chinese characters, the oracle bone characters are characterized by shape. Undoubtedly, the "signifier" of the oracle bone script character number can only be a font. Its "object" is the original meaning of the character directly expressed by the text, while the "explanatory item" is the other ideological meaning expounded and created by the discerning reader. If only the original meaning of the oracle bone inscriptions is analyzed, we can understand the relationship between the form and the meaning of the oracle bone inscriptions as the relationship between the sign-one object. Moreover, the oracle bone script character number has a logical and close correlation between "pointer" and "object", which is not only an important symbol of the difference between oracle bone script and phonetic writing system, but also a significant feature of the difference between oracle bone script and later Chinese characters, especially modern Chinese characters.

Oracle bone scripts are basically "motivational symbols", whose motivational relationship refers to the logical correlation between signs (font) and objects (meaning), that is, the reason for creating characters and the basis for the formation of meaning, which is also known as "constitutive motivation" or "constitutive meaning" in philology.

In Pierce's semiotic system, "motivational symbol" includes two basic types: "icon" and "index". This classification principle is also valid for oracle bone inscriptions. Almost all oracle bone inscriptions can be found in the two basic types of "image" and "symbol". On the one hand, it depends on the attributes of hieroglyphic ideograms and the character of "embodiment by form", on the other hand, it

depends on the fundamental nature of its "motivational symbol". On this issue, the "motivation" in the semiotic sense coincides with the "constitutive motivation" in the philological sense. Therefore, on the basis of the semiotic classification principle, we can discuss the structural motivation of "image symbol" and "symbol" of oracle bone inscriptions respectively.

3. The structural motivation of oracle image symbols: the iconographic relationship between the symbol and the object

"Image symbol" is formed by imitating the performance characteristics of the object itself. There is a certain "likeness" relationship between the symbol and the object, and it can even be regarded as the representation form of the object. This kind of "likeness" can be similar on the basis of vision, hearing and other senses, so it is also called "likeness symbol". If a thing has some aspect of "like" with another thing, it can be a symbol of that thing to a certain extent. Among all symbol types, "image symbol" is closest to the natural attribute of the object, especially the image symbol produced by the vision, such as photos and paintings, which often have the most extensive acceptability and comprehensibility, and can be immediately associated with the object itself. "An image is a sign which, by means of its own features alone, indicates an object, which has the same characteristics whether such an object actually exists or not. ... It is an image of that thing, and as long as it resembles that thing, it is used as a direct reference to that thing." (Pierce, 2006, P280-281).

However, image symbols cannot and need not be completely similar to objects, as long as there is a certain degree or part of similarity between them. If the signifier and the object are absolutely similar or even identical, it is impossible to tell which is the signifier and which is the signified, and the sign relation does not exist. According to the degree of iconicity between symbol and object, Peirce divided

image symbols into several types, among which "imaginal" and "diagramatic" can be found in the image symbols of oracle bones.

3.1 Figurative iconicity types in oracle bone inscriptions image symbols

"Image-like" is the most common image symbol, and this type of "image-like image symbol" is also the largest number of oracle bone inscriptions, accounting for about 2/3 of all the oracle bone inscriptions. This is because the oracle bone script is the most figurative ideographic Chinese characters, and its form can often be regarded as a kind of image picture about the object. Most pictographic characters and ideographic characters in oracle bone inscriptions belong to this type of symbol, whose configuration motivation is to directly depict and reproduce the morphological features of specific things in picture-like form, and the iconographic relationship between the symbol and the object is clear and natural.

The vast majority of the pictographic characters in oracle bone inscriptions, which are "drawn into their own objects and followed by their body," are "figurative image symbols" that draw brief pictures based on the twists and turns of the physical contours of specific objects. For example, "man" is written [18901] （ Moruo,G. & Houxuan,H.(1978-1983).）as a human figure looking sideways; "Wood" is written [32711] in the shape of a tree; "Bow" writing [940], "arrow" writing [4787], like the shape of bow and arrow, and so on, similarly, most of the oracle bone inscriptions composed of pictographic parts can also be classified as "image-type image symbol" type, in which each pictographic part with its original meaning directly to complete the "class and unity (meaning)" (Xu Shen: The ideographic process of "Shuo Wen Jie Zi Xu"), the integrated meaning of the word can be

clearly presented from the overall image intention painting formed by the combination of various parts. For example, "Hugh" [8156] is written from a man to a wood, like a man resting against a tree; "Shooting" is written [163] from the bow to the arrow, like a bow archery shape. From the perspective of the overall font, this kind of ideographic character has the intuitive characteristics similar to pictographic character, and some scholars even call it "integrated pictographic character" or "ideographic character". The direct and close correlation between the signifier and the object is basically established by virtue of the iconicity.

3.2 Graphical iconicity types in oracle bone inscriptions image symbols

The "graphic image symbol" presents a "structurally similar" relationship between the sign and the object, as Pierce explains: "Even if there is no perceived similarity between it and its object, there is an similarity between the relations of each of the components of the diagram. ... A lot of diagrams don't look at all like their objects, they just have to do with their constituent parts being similar." (Pierce, 2006, P284-285). This kind of "graphic image symbol" formed on the basis of "similar structure" also has a typical representative corresponding to each other in the tortoise bones.

First, there are some words in Oracle composed of the accumulation of the same parts, the meaning of which directly reflects this accumulation relationship and has nothing to do with the parts themselves, and can be regarded as the graphic form of abstract concepts. For example, writing "duo 多" [34296], from two meat, the original meaning is large quantity; "Dropout" writing, from two Ge, the original meaning is less, small; "Cao 曹" writing [6942], from the two east, the

original meaning is even pair. The parts of these words "meat", "ge", "Dong" (the original meaning is pocket) have no appearance resemblance to the concepts of "many", "even", etc. Only by considering the structure of their component combination itself as a sign, can we understand the "structural similarity" relationship between them and the object.

Secondly, there are some characters made up of the same parts, whose meanings themselves represent some structural relations, and the concept of these relations is conveyed by the different positions and combinations of the parts. Such as a series of made up by two artificial parts of oracle bone characters: [11503] "竝" writing, like two people tied, original meaning is promptly; "And" writing [7440], like two people to join, the original meaning is parallel phase from; "Cong" writing [6011], like two people to follow, the original meaning is follow; "Hua" writing [7647], like two people interdependent, has the meaning of comparison; "Bi" writing [2450], like two people compare, the original meaning is intimate; "North" writing [11501], like two people back, namely the ancient back character. The objects of these character symbols have no necessary connection with the original meaning of the component "man" that constitutes the signage. Instead, the objects directly form a "structurally similar" motivation relationship with the internal structure of the signage.

4. The structural motivation of oracle signs: the relationship between the sign and the object

"Symbol" is formed by the internal and inherent connection with the object. The relationship between the symbol and the object is not physical resemblance, but a connection in time and space or logic. The function of the symbol

is to indicate or guide, which can draw the interpreter's attention to the object, and discover or associate the existence of the object through the hint of the sign. "A sign is such a signifier or representation that it indicates its object not primarily by being like or similar to it, nor by being related to a general property occasionally possessed by that object, but by being related to individual objects in terms of dynamism (including space), that is one aspect; On the other hand, it has a connection to the feelings and memories of the person for whom it serves as a symbol." (Pierce, 2006, P286). Symbols can be divided into two types: one is to directly indicate the spatial position of the object with some form of pointer, such as an arrow to indicate the orientation; The other is to use things that are intrinsically associated with the object as symbols to cause the recipient to associate with the object, such as the footprint as a symbol to a person or animal. These two types respectively represent the two basic functions of the symbol "indicator" and "index", so "symbol" is sometimes called "indicator symbol" and "index symbol", or take the comprehensive name of "pointer symbol".

4.1 Indicative relationship between the symbol represented by the pointer and the object

The type of symbol that uses the signifier to directly indicate the spatial position of the object roughly corresponds to the signifier in the "six books" system in the oracle bone script. The reason why it is said to correspond "roughly" is that only small points or short horizontal parts really play the role of "signs" in the oracle bone inscriptions, which are also called "indicators" in philology. For example, "blade"" 刃 " is written ⟨figure⟩ [27866] in the shape of a knife, with small points indicating the location of the blade. In the writing of "Zhu 朱 " ⟨figure⟩ [8155]， it takes the shape of a tree and shows the location of the bare heart of the tree with a short cross, which is the original meaning of the bare heart. However, "a sign is

such a sign. If its object is removed, the symbol suddenly loses the character that made it a symbol." (Pierce, 2006, P281). Therefore, as a type of symbol, the oracle finger characters have to show both the finger and the object in the same font, and use the spatial indication relationship between the two to show things or principles. For example: "up" writing ⟨figure⟩ [3337], "down" writing ⟨figure⟩ [6487], with horizontal (arc) to indicate its position with long horizontal (arc); "Wu"" 兀 " writing ⟨figure⟩ [19642], "Yuan 元 writing ⟨figure⟩ [34088]," Tian 天 "writing ⟨figure⟩ [13804], three shapes close to Yitong, all take the human figure, with a short cross indicating the position of the human head, the original meaning is the head, the first and the top of the head; "Kew 吸 " writing ⟨figure⟩ [13637], used an image to look at a human figure sideways, with the two short horizontal lines indicating the position of the head and foot, which is the original meaning of poles; "Yi 亦" is written ⟨figure⟩ [16013], taking the image to face the human form, with two points to indicate the location of the armpit, the original meaning is armpit; "Fork 叉 " writing ⟨figure⟩ [6450], take the shape of a human hand, with two points to indicate the part of the nail, the original meaning is fingernail;

"Gan 甘" is written ⟨figure⟩ [8002], taking the shape of population, with a short cross indicating food in the mouth, the original meaning is sweet food; "Yue 曰" is written ⟨figure⟩ [12532] in the shape of a population, with short horizontal lines indicating the origin of words, which means speaking. The structural motivation of this type of signifier is the "signifier" of philological meaning, which directly indicates the position of the object in a certain spatial domain. In the semiotic sense, "the indicator simply says: 'There! 'It draws our

eyes and forces them to stay there. ... Pure indicators, they point to objects without describing them." (Pierce, 2011, P82).

4.2 Index relationship between symbols represented by knowing words and objects

Another type of symbol is to arouse the receiver's association about the object by referring to things that are intrinsically associated with the object. The correlation between the sign and the object includes the relation of time and space adjacency, the relation of causation, the relation of part and whole, the relation of metaphor and symbol and so on. If one thing always follows another in time and space, or logically, or has any internal relation between them, we can regard it as the symbol of another; Smoke, for example, can often be seen as a sign of fire, and there is a causal relationship between fire and smoke. The function of this kind of symbol is to determine the meaning in the relationship. The symbol can be regarded as some kind of "index" of the object, which can be associated with the existence of the object. "Psychologically, the effect of markers depends on associations that are close in space and time, not on associations that are similar." (Pierce, 2006, P286). However, the relationship between things is often complex and changeable, so the structural motivation of the oracle bone characters corresponding to such symbols is also very complex.

4.3 Oracle shape and sound symbols: the semantic induction relationship between the signifier and the object

In oracle bone inscriptions, the symbols with the function of "index" are not only the ideographic characters and a few pictographic characters, but also part of the phonographic characters. According to statistics, there are about 1,500 recognizable characters in the oracle bone inscriptions, of which about 230 are phonetic characters, accounting for about 18% of all recognizable characters.

Xu Shen's Shuo Wen Jie Zi Xu says that "people who imitate sound take things as their own name and liken each other." "Taking things as their own name" means using the names of events as symbols to express the categories of meaning of words, while "Taking complementarity" means using words with the same or similar sounds as their own characters. Therefore, the phonographic character is a type of Chinese character created by the combination of form character and sound character. For example, the "barge 驳" of oracle bone inscriptions [36836], from (horse) from (Yao), the original meaning is a horse of mixed colors; The form character "Ma" indicates the meaning category of the word meaning, while the sound character "Yao" plays the role of indicating the word sound. It can be seen that the ideographic means of phonographic characters are special. It is not a simple "form to indicate meaning", but a combination of "form to indicate sound", so this type of Chinese characters is also known as "meaning" characters.

Oracle can read pictophmetic characters all visible form operators, a total of about 40, were related to the body's own (people), (female), (mesh), (ears), (since), (check), (heart), (and), (paw), (ghost), (Ne 疒), (Pu 攴), about the image of the animals (cattle), (horse), (deer), (dog), (tiger), (bird), (Zhui 隹), (shell), (cao 屮), (wood), (meter) about the plant species, (sun), (moon), (fire), (water), (rain), (stone), (Fu 阜) about the natural thing, (Ge 戈), (knife), (jin), (silk),

(Ji), ⇑ (⼧ mian), �␣ (⽫ min), ⊜ (food), ⼃ (meat), ⼦ (walk), ⼅ （chi 彳） etc. Of these, the most commonly used and powerful is ⼩ (water); There are more than 40 recognizable oracle shape and sound characters made up of it, accounting for 1/5 of all the recognizable oracle shape and sound characters.This absolute advantage in the number of characters in the Ministry of Water is probably closely related to the special dependence of the Han people on water in the process of agricultural production.

Through the analysis of the phonetic characters of the water department, we find that the structural motivation of the phonetic characters of oracle bone inscriptions is mainly manifested by the species relation or semigraph relation between the phonetic characters and the meaning, which is also applicable to the phonetic characters of other phonetic characters. It is precisely because of this logical correlation between form and meaning that we classify oracle shape and sound characters as sign types, and the relationship between their signs and objects can be summarized as "semantic induction" relationship. The reason is that both the species relation and the semantic relation can be understood as the induction and arrangement of the signifier to the object on the basis of the semantic relation.

5 Conclusion

The logical starting point of this paper is based on the oracle bone philology. From the perspective of philology, the characteristic of the oracle bone inscriptions to express meaning by form means that the oracle bone inscriptions have distinct figurative characteristics, and the characters can directly express the conceptual meaning of the characters without using the pronunciation as the medium. This is not only the fundamental symbol of the difference between oracle bone script and western pinyin characters, but also the important feature of its

difference from later Chinese characters, especially modern Chinese characters.

From the perspective of Peirce's semiotics, the relationship between shape and meaning of oracle bone inscriptions can be understood as "sign--object", and the oracle bone inscriptions are regarded as "motivational symbols". That is, the oracle bone inscriptions are divided into image symbols and sign symbols. Image symbols emphasize the iconoid relationship between the finger sign and the object, while sign symbols emphasize the indication and index relationship between the finger sign and the object. Different types of oracle bone inscriptions are used as models to analyze their different symbolic configuration motivation. Combined with the "six books" method in philology, the paper focuses on the logical correlation between the oracle font and the meaning, and summarizes the symbolic characteristics of the oracle font.

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