

ANALYSES ON ARBITRARINESS OF CHINESE CHARACTERS FROM THE PERSPECTIVE OF MORPHOLOGY

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Abstract

The arbitrariness of a sign is considered a universal feature and a well-established property of the world's languages by many linguists, which makes languages flexible and facilitates distinguishing the particular referents to words. However, there are some exceptions in the case of Chinese, a language quite different from western languages. This article analyzes Chinese's arbitrariness mainly from the perspective of word formation and will show that Chinese characters, which were iconic originally, depart from this universal feature to a great extent. Through many transformations and changes, Chinese characters continue to display three features: iconicity, systematicity and arbitrariness.

Preface

Human beings are in possession of a unique capacity – the use of language, which sets us apart from all other creatures on earth. Armed with it, we are able to communicate about our abstract feelings or emotions as well as matters seen, heard and felt; Armed with it, we are able to reason logically as well as make small talk; Armed with it, we are able to summarize and analyze the past as well as predict the future. An individual can acquire a language in a certain social environment and by this means he can convey complicated and abstract concepts besides daily social communications, which is a distinctive talent all other animals lack. What makes human language so complicated yet so flexible? What makes human language so creative in its capacity for novel expression without being restricted by direct contexts? In short, what sets human language apart from the languages of other creatures?

According to the Bible, in the beginning the world had but one language and one common speech. It was Adam who named the animals, plants and other objects in the world. People strove to build a Tower of Babel so high it could reach the heavens; their effort irritated the Lord so much that He chose to confuse their language. And so they were forced to cease their effort for they were

unable to understand and communicate with one another. Thereafter, people who spoke different languages were scattered by the Lord all over the entire face of the earth. This biblical tale attempts to account for the wide variety of languages in the world. However, were it true, the Lord must have taken greatest pains and effort to bestow on one group of people a language, namely, the Chinese, for their language is a totally different, e.g., from any Indo-European one. Are you curious that when signifying the same object, signals employed vary from language to language in sounds and forms, for example, “tree” in English, “baum” in German, “arbre” in French, and “树” /shù/ in Chinese. These four signals bear no substantial or natural but only an arbitrary relationship to the object in the real world they intend to signify. None of them is better or more proper than any other as a symbol when signifying the same object.

Much attention has been drawn to this mysterious field and many researches reveal that most human languages share some design features: arbitrariness, creativity, duality of patterning, cultural transmission and displacement, among which, the arbitrariness of a sign is considered a linguistic “universal feature” (Greenberg, 1957). A sign is arbitrary when there is no inherent or natural relationship between the forms and the meanings for words in the vocabulary, which is a well-established property of the world’s language (de Saussure, 1916; Hockett, 1960). *Kangaroo* is a perfectly good name for the animal today, but when Captain Cook asked for the name of the strange beast, the answer “*kangaroo*” given by a native in Australia simply meant “I don’t know”. The arbitrary and conventional nature of linguistic symbols clearly shows that any word can stand for any notion. Morphemes and morpheme-constructions are connected to what they signify in an arbitrary and conventional way. If this were not so, all human beings might use only one type of language – iconic signs.

Arbitrariness carries key advantages for communication. Some degree of arbitrariness seems essential in order to gain flexibility in signaling, which allows human beings to express more than direct, one-to-one linkage between forms and meanings (Gasser, 2004). Arbitrariness also allows us to communicate about concepts for which direct perceptual grounding is unlikely to be available (Clark, 1998). Arbitrariness can facilitate distinguishing distinct referents because it provides linguistic signals which are efficient and discriminable (Perniss, 2014). And an arbitrary form can activate a more general and abstract representation (Edmiston and Lupyan, 2015) (e.g., the general concept “tree” versus a specific instance of a tree such as “bark”). Saussure’s view that the form of a word has an essentially arbitrary relation to the meaning of the word is based on his research on Indo-European languages. However, Chinese belongs to a very different language family, which has evolved independently

and vigorously. Are there any variations in Chinese characters when it comes to arbitrariness? This article narrows its focus on analyzing the arbitrariness of Chinese characters from the perspective of word formation, i.e., the morphology of characters.

1. Introduction to Chinese characters

Chinese and English are categorized into different language families for many reasons. Simply put, Chinese characters are ideographic while English words are phonographic. Once you have learned phonics, you are able to pronounce a word or a sentence in English, even though you might not understand its meaning. This is not so for Chinese. Looking at a Chinese character consisting of a horizontal stroke, a vertical stroke, a raising stroke, a falling stroke, or a dot stroke, you might consider it as a pattern of a picture but not be able to figure out its pronunciation. Chinese speakers have to commit to memory hundreds, indeed, thousands of sounds in order to be able to read, which places a great burden on their memories. Then how have Chinese speakers solved this problem?

It cannot be denied that languages undergo adaptation or change to some degree during their cultural evolution. Chinese characters, as one of the oldest languages, have outlived other languages, e.g., ancient Egyptian or Sumerian. And most importantly, Chinese characters are still in use widespread and vigorously, which reveals that Chinese characters have undergone special changes or adaptations (unlike their counterparts) in order to survive and flourish. Some of those changes or adaptations are to be found in the formation of Chinese characters.

Chinese characters can be categorized into six types of word formation: pictograph, self-explanatory characters, associative compounds, phono-semantic compounds, transformed cognates and phonetic loan characters, the first four of which are concerned with how a Chinese character is formed, while the latter two only deal with how to use an already formed character. Transformed cognates refer to different characters with similar forms that share the same meaning, i.e., many characters expressing one meaning. In ancient China, different characters were employed to express the same meaning in various written dialects. For instance, some written dialects use “老”/lǎo/ to convey the meaning of “old” while another written dialect uses “考”/kǎo/ for the same meaning. When the two documents or books were compared, it was ruled that

“考”/kǎo/ was a transformed cognate to “老”/lǎo/ and both of them meant the same, which is significant for cultural communication and transmission. The phenomenon of transformed cognates is so rare that it has almost disappeared in today’s usage of Chinese characters. Each of the transformed cognates has developed and possesses their unique meanings, such as “考”/kǎo/, only meaning “to test” at present. Phonetic loan characters can be defined as one Chinese character with the same or similar sound is borrowed from another circumstance to realize a new, generally abstract, meaning, i.e., one character conveying different meanings. For instance, “然”/rán/ is used as a phonetic loan, carrying a new abstract meaning of “so” besides its original meaning “burning”. In modern Chinese, a new component “火”/huǒ/, meaning “fire”, has been added to “然”/rán/ and a new character “燃”/rán/ has been coined to convey the meaning of “burning” more vividly. Meanwhile, “然”/rán/, which was a loan, now becomes a character specializing in conveying “so”. Apparently, in these cases, ancient Chinese people did not want to create novel characters. At any rate, these two methods of word formation involve mostly a new usage of coined characters rather than a new coinage.

This article is designed to analyze the arbitrariness of Chinese characters from the perspective of morphology. Morphology is the study of the structure and function of word forms. It is not the study of “word”, understood as the elementary units of an utterance possessing semantic or pragmatic meaning. For Indo-European languages, such as English, morphology analyzes word forms by three main areas of interest – inflection, derivation, and compounding. Inflection creates different word forms of a given lexeme (jump-ing, jump-s, jump-ed), while derivation and compounding constitute means of word formation, the creation of new lexemes (hope-less, hope-ful). Chinese characters, from a very different linguistic system with its own characteristics, should not be analyzed in the light of English morphology. Rather, its unique word formations will be adopted in this article to explore its arbitrariness, respectively, pictograph, self-explanatory characters, associative compounds and phono-semantic compounds. Through analyses, two more features, apart from arbitrariness, have emerged prominently between form and meaning in Chinese characters: iconicity (aspects of form resemble aspects of meaning) and systematicity (statistical regularities in forms can predict aspects of meaning).

2. Analyses on arbitrariness of Chinese characters

Most languages are composed of sounds, forms and meanings. A given Chinese character, though referred to as ideographic, possesses one sound, one form and at least one meaning, just as an English word can be pronounced, spelled and explicated. Therefore, though this article lays its emphasis on the morphological analyses of the arbitrariness of Chinese characters, it will *not* rule out aspects of sound and meaning, and in the end may result in a complete and satisfactory account of the arbitrariness of Chinese characters. Three relationships will be analyzed thereafter, respectively, sound and form, sound and meaning, and form and meaning.

2.1. *Sound and form*

It is evident that most Chinese characters, as in English, bear an entirely arbitrary relationship between sound and form.

In English, the sound of /k/ could have been recorded in the form ‘a’, ‘g’ or ‘p’, or any other form if accepted by most people in the first place. If so, the sound /kai/ (kite) definitely could be set down as ‘aite’, ‘gite’ or ‘pite’ or some other form. The irregular and exceptional spelling of some English words provides evidence that the relationship between sound and form is arbitrary. For example, if ‘phone’ and ‘knight’ were written down as ‘fone’ and ‘night’, the newly-coined forms probably would not affect the original sounds. The homophones and some homographs are further proofs that sound has no natural relationship with its form.

Homophones:

‘hare’ and ‘hair’, ‘bare’ and ‘bear’, ‘sea’ and ‘see’, ‘son’ and ‘sun’, ‘too’ and ‘two’, ‘hear’ and ‘here’

Some homographs:

record, dessert, live, lead

This is true as well in Chinese characters for sound and form. Take “月”/yuè/ for example. it is not necessarily pronounced as /yuè/. This character could carry the sound of /rì/ (日) or /shān/ (山), or any other sound if it had been prescribed by the earliest convention. On the other hand, the pronunciation /yuè/ can be associated with several forms of Chinese character, such as “悦”

(pleased), “跃” (leap), “乐” (music) and “阅” (read). Homophones are very common among Chinese characters. Open a dictionary, and you will find many homophonic characters sharing pronunciations but differing in forms. Chinese characters are ideographs with fewer pronunciations compared with English, which leaves it inevitable for many pronunciations to be used repeatedly in various forms. In China, if one is asked about his name, he will not only pronounce it but also tell how to write it, for there may exist more than one form for the same pronunciation. Take the name “张元”/zhāng yuán/ for example. The name holder must tell the listener the surname is “张”/zhāng/ with “弓”/gōng/ plus “长”/cháng/, rather than “章”/zhāng/ with “立”/lì/ on top of “早”/zǎo/; the given name is “元”/yuán/ (means beginning) instead of “圆”/yuán/ (round), “园”/yuán/ (garden), “原”/yuán/ (origin), “员”/yuán/ (member), “媛”/yuán/ (beautiful girl), or “缘”/yuán/ (coincidence). And also there are many Chinese homographic characters which are pronounced differently but in the same forms. For instance, “便”/biàn/ and “便”/pián/, “大”/dà/ and “大”/dài/, “都”/dōu/ and “都”/dū/, “长”/cháng/ and “长”/zhǎng/, “乐”/lè/ and “乐”/yuè/, “仇”/chóu/ and “仇”/qíu/.

These homophones share the same pronunciations but with different forms, while the homographs above carry two pronunciations in the only single form. These phenomena reveal clearly that sound and form bear no natural, but rather an arbitrary, relationship.

2.2. Sound and meaning

In Chinese, the sound /rì/(日, sun) is associated with that round glowing shining object in the sky. The sound /yuè/(月, moon) refers to the natural satellite of the earth, visible (chiefly at night) by reflected light from the sun. A naturally raised area of land is referred to as /shān/ (山, hill) by Chinese people. The colorless, transparent, odorless, tasteless liquid that forms the seas, lakes, rivers, and rain is pronounced as /shuǐ/ (水, water) by Chinese people. And Chinese people produce the sound /huǒ/ (火, fire) to signify combustion or burning, in which substances combine chemically with oxygen and typically emit bright light, heat, and smoke. But why and how these sounds are associated with the meanings they signify are extremely hard to figure out. Take another example. In Chinese, the sound /gǒu/(狗, dog) may mean a domesticated carnivorous mammal that typically has a long snout, an acute sense of smell, and a barking, howling, or whining voice, widely kept as a pet or for work or field sports. However, if it had been agreed at the very beginning, this sound could

absolutely be used to signify another small domesticated carnivorous mammal – “猫” (/māo/, cat) – with soft fur, a short snout, and retractile claws, widely kept as a pet or for catching mice. Moreover, the fact that many homonyms and homophones can be tolerated in Chinese characters implies that sound bears an arbitrary relationship to meaning as well. For instance:

Homonyms which share sound and form but differ in meaning: “策”/cè/ can convey at least four meanings: a whip (noun), urge (verb), idea (noun) and record (noun).

Homophones which share sounds but differ in forms and meanings: The same sound /chí/ can be expressed in the forms “池” meaning ‘a pond’, “驰” meaning ‘to rush’, “持” meaning ‘to hold’, and “迟” meaning ‘being late’.

As for the same meaning carried by various sounds, hundreds and thousands of dialects in China provide sufficient evidence. Unified written language – Chinese characters – are accepted and used throughout China, but people in different parts of China tend to produce sounds of variations to refer to the same objects or the same meaning.

That one sound is fixedly attached to a meaning or some meanings is due to conventions, which are the formally or informally agreed-upon ways we use language, whether spoken or written, for the sound of a Chinese character bears essentially an arbitrary, rather than an inherent or natural, relation to the meaning of its character.

However, there might be one exception in terms of the relation between sound and meaning, i.e. the onomatopoeia. Onomatopoeia is when a word’s pronunciation imitates its natural sound, which involves a fairly straightforward one-to-one resemblance between sound and meaning (Gasser, 2010). When you say an onomatopoeic word, the utterance itself is reminiscent of the sound to which the word refers in the real world. Let’s have a comparison between English onomatopoeic words and Chinese ones, which may help understand Chinese onomatopoeic words more clearly.

- 1) The sheep went, “**Baa.**” “咩咩” /miē miē/
- 2) Silence your cellphone so that it does not **beep** during the movie. “嘟嘟” /dū du/
- 3) The bridge collapsed creating a tremendous **boom.** “轰隆”/hōng long/
- 4) The large dog said, “**Bow-wow!**” “汪汪”/wàng wang/
- 5) Both bees and buzzers **buzz.** “嗡嗡”/wēng wēng/
- 6) The **clanging** pots and pans awoke the baby. “叮当”/dīng dang/
- 7) The dishes fell to the floor with a **clatter.** “哗啦”/huā la/
- 8) The snake slithered and **hissed.** “嘶嘶”/sī sī/

- 9) I love the sound of bacon **sizzling** on a weekend. “滋滋”/sī si/

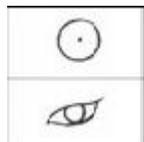
These onomatopoeic words are made to imitate the natural sounds in both languages, which means the non-arbitrary connection between the sounds and their meanings, i.e. given the sound, it might be possible to predict the meaning; and given the meaning, it also might be possible to predict the sound. The reason why “might be” are used here is that many onomatopoeic words do not display exact resemblance to the natural sounds and some of them are even distant from the sounds they intend to signify. The examples above demonstrate that the sounds English and Chinese respectively adopt to imitate even the same natural sounds are differentiated from each other more or less. So, it is because of convention again that onomatopoeic words are agreed to represent the natural sounds ultimately, though with some differentiation of resemblance. In this sense, onomatopoeic words appear to be partly iconic and partly arbitrary signs.

Onomatopoeic words are sporadic instances existing in all languages, but the vast majority of words are non-onomatopoeic (Lyons, 1981). As far as Indo-European languages are concerned, despite occasional iconic characteristics, human language is essentially arbitrary, i.e. the form of an expression is generally independent of its meaning except for the associations established by convention (Finegan, 2012). However, when it comes to exploring the arbitrariness of Chinese characters in terms of the relation between form and meaning, things may be different.

2.3. *Form and meaning*

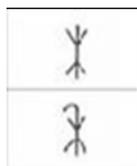
2.3.1. Pictographic characters

Chinese pictographic characters are based on pictures, but mere pictures are absolutely not Chinese characters. Only when the picture is simplified into a semiotic sign and related to a specific meaning and a specific sound, does a pictographic character come into being. As its name implies, a pictographic character is an iconic sign which resembles what it intends to signify in the natural world. The earliest forms of Chinese pictographic characters can reveal the resemblance between form and meaning. For example:



Up: 日/rì/ (sun)

Down: 目/mù/ (eye)



up: 木/mù/ (tree)

down: 禾/hé/ (crop seedling)

The earliest forms of “日” (sun), “目” (eye), “木” (tree), and “禾” (crop seedling) display four drawings of what they represent. The another three pictographic characters are listed below, which look complicated but more resembling to the objects they signify.



龟
turtle

角
horn

鹿
deer

One of the most important characteristics of Chinese pictographic characters is that their forms do not bear an arbitrary connection to their meanings, i.e. given its form or meaning, one may predict its meaning or the form of one character, even if he or she does not know the language. In this case, iconicity of Chinese pictographic characters may be beneficial in learning and communication. However, a major challenge for them is that the resemblance-based mapping between form and meaning is not sufficient to depict abstract concepts and ideas. The next means of word formation makes for a good complement to pictographic characters.

2.3.2. Self-explanatory characters

Self-explanatory characters (also translated as ideograms or self-indicating characters) can express an abstract idea through an iconic form, including modification of pictographic characters. Some instances are illustrated below.

“一” (one), “二” (two), and “三” (three) are numerals which are represented by the appropriate number of strokes.

“上” (above) and “下” (below) are two opposite directions represented by iconic indications above and below a line.

“本” and “末” refer to the parts of a tree by marking the appropriate part of a pictographic character of “木” (tree): “本”, root of a tree, with the base indicated by an extra stroke to the pictographic character “木” (tree), means the basis or the most importance; “末”, apex of a tree, with the top highlighted by an extra stroke to the pictographic character “木” (tree), means the end or the least importance.

“凶” (danger, risk) indicates that there is a deep pit in front of you, and if you fall into it, you are in danger.

“甘” (sweet) with a short stroke inside, refers to having something sweet in mouth.

“中” (middle, center) with a vertical stroke marked in the middle, conveys the meaning of medium or middle.

These self-explanatory characters, though mainly used to express abstract concepts or ideas, can be explained or predicted on the basis of their forms. Therefore, the relation between form and meaning in this case is iconic and inherent, rather than arbitrary.

It is true that these iconic signs can bring some benefit for language learning and communication, but it is not likely that every object or abstract concept can be depicted by such iconic signs as pictographic and self-explanatory characters. If so, there would be countless signs created in Chinese, which, on the contrary, would result in tremendous load for one’s memory. The following two means of word formation help solve this problem.

2.3.3. Associative compounds

Associative compounds are compounds composed of two or more pictographic or self-explanatory characters which are all responsible for suggesting the meaning of the compounds. Some illustrations below can demonstrate how associative compounds work.

“休” means “to rest in the shade”, depicting a person (“人” in reduced radical form “亻”) leaning against a tree (木), which consists of two pictographic characters: “人” (a person) and “木” (a tree).

- “看” means “to watch”, depicting a hand “手” above an eye “目” in order to look far.
- “男” means “male, man”, implying that people who work hard with strength “力” in the farm field “田” are just men.
- “明”, composed of “日” (sun) and “月” (moon), means “light and bright”.
- “从”, composed of two “人”s (person), means “to follow”.
- “众”, composed of three “人”s (person), means “many people, a crowd”.
- “林”, composed of two “木” (tree), means “woods, grove”.
- “森”, composed of three “木” (tree), means “forest”.
- “忐忑”, with the heart up (上) and down (下), means “mentally disturbed, uneasy”.

These illustrations reveal that associative compounds are usually created on the basis of extant pictographic characters or self-explanatory characters, and in turn, the latter play a role in suggesting the meaning of the former via association. The relation between form and meaning in the case of associative compounds can also be explained or predicted to some extent, though it is not based on resemblance. Therefore, the form of an associative compound does not have an essentially arbitrary connection to its meaning, which is also true for English compounds composed of more than one free morpheme. For instance:

Football: “foot” and “ball” bear an arbitrary relation to their meanings, but “football” may not, for its meaning can be explained or predicted.

Housewife: “house” and “wife” has no natural or inherent relation with their meanings, but the meaning of “housewife” probably can be explained and understood on the basis of its two composed parts.

So, interestingly, as for compounds, both Chinese associative compounds and English compounds, the relation between form and meaning is not arbitrary. In this case, the relation can be characterized by a different form of non-arbitrariness – systematicity, the quality or condition of being systematic. The chief difference lies in that although both compounds bear non-arbitrary relations between form and meaning, the individual parts of English compounds may appear arbitrary while the individual parts of Chinese associative compounds are iconic signs.

Undoubtedly, systematicity of associative compounds provides important benefits for category learning and categorization. It relieves learners’ memory

load and pressure to bear tremendous forms in mind. But because Chinese characters are ideographic instead of phonographic, if every character carried one distinctive sound, there would be countless sounds in Chinese, which would be also a great burden for memory. Therefore, unavoidably, there are many homophones or characters of similar pronunciation in Chinese characters. The phono-semantic compounds in Chinese characters provide a good solution to relieving one's pressure to memorize too many forms and too many pronunciations.

2.3.4. Phono-semantic compounds

As the term implies, phono-semantic compounds were created by combining a phonetic element with a semantic element. In most cases, the semantic elements are in the form of radicals, which mainly derive from simplified pictographic characters, self-explanatory characters or associative compounds. So, phono-semantic compounds are often referred to as radical-phonetic characters as well. Phono-semantic compounds, which make up the majority of Chinese characters, can eliminate the ambiguity caused by identical pronunciations or similar pronunciation, merely based on their distinctive semantic elements. Some illustrations are demonstrated below.

Examples of identical pronunciation:

“钢” /gāng/ refers to “steel”, with “冈”/gāng/ functioning as the phonetic element, and “钅” (simplified radical of “金” meaning “metal”) as semantic element.

“纲” /gāng/ refers to “thick rope”, also with “冈” functioning as the phonetic element, and “纟” (simplified radical of “丝”) meaning “silk, string” as semantic element.

“岗” /gāng/ refers to “hillock”, again with “冈” functioning as the phonetic element, and “山” meaning “hill” as semantic element.

Examples of similar pronunciation:

“刨” /páo/, combining the semantic element “刂” (simplified radical of “刀” meaning “knife”) with the phonetic element “包” /bāo/, means “to dig”.

“跑” /pǎo/, combining the semantic element “足” (foot) with the phonetic element “包” /bāo/, means “to run”.

“泡” /pào/, combining the semantic element “氵” (simplified radical of “水” meaning “water”) with the phonetic element “包” /bāo/, means “to bubble”.

- 水” meaning “water”) with the phonetic element “包” /bāo/, means “bubble, foam”.
- “炮” /pào/, combining the semantic element “火” (fire) with the phonetic element “包” /bāo/, means “firecracker, cannon”.
- “疤” /pào/, combining the semantic element “疒” (simplified radical of “病” meaning “ill, sick”) with the phonetic element “包” /bāo/, means “bleb”.

These phono-semantic compounds are the most important word formations in Chinese characters, which allow creating countless new characters on the basis of limited existed pictographic characters, self-explanatory characters or associative compounds, and which also narrow the number of pronunciations of Chinese characters at the same time. For instance, “爸”/bà/, “把”/bǎ/, “笆”/bā/, “疤”/bā/ and “耙”/bà/. On one hand, they all share the phonetic element “巴”/bā/, which is a pictographic character meaning “tail”. But in this situation, only the pronunciation /bā/ of “巴” is considered and loaned instead of its meaning. These phono-semantic compounds are pronounced identically or similarly, only somehow differing in the tones. On the other hand, their distinctive semantic elements not only determine but also explain their respective meanings to a certain extent. The meaning of “爸” (pa, or dad) derives from its semantic element “父” (father), the meaning of “把” (to control) from “扌” (simplified radical of “手” meaning “hand”), the meaning of “笆” (basketry or fence) from “竹” (bamboo), the meaning “疤” (scar) from “疒” (simplified radical of “病” meaning “sickness”), and the meaning “耙” (to rake) from “耒” (an ancient plough). It is difficult to explain why “巴” (tail) lent its pronunciation to these phono-semantic compounds. But some parts of them (semantic elements) apparently bear inherent or natural relation to their meanings. So, in the case of word formation, phono-semantic compounds are semi-arbitrary, though still with some degree of iconicity and systematicity.

It cannot be denied that Chinese characters have undergone significant transformations in word formation, which have simplified the structure of Chinese characters so as to make them easy to memorize and to write. These simplified transformations render Chinese characters to look more arbitrary rather than iconic, because we almost cannot detect the natural relation between form and meaning in many Chinese characters, such as “鹿” (deer), “猪” (pig) and “狗” (dog). It is hard for readers to predict their meanings according to their forms.

On the contrary, many English words become more systematic instead of arbitrary, with derivational words providing a good example. For instance,

such words as ‘pure’, ‘simple’ and ‘clear’ bear an arbitrary relationship between their forms and meanings, but the meanings of these derived words ‘purify’, ‘simplify’ and ‘clarify’ become systematic and predictable. Another example: looking at these words: ‘brotherly’, ‘friendly’, ‘lovely’ and ‘scholarly’, we, bearing systematic knowledge in mind, can make a conclusion that these words are most likely adjectives and their meanings have much to do with their roots. Thus, it can be seen that fully developed natural languages usually share two characteristics: arbitrariness and systematicity, the former rendering flexibility while the latter rendering assistance in category learning and categorization. When it comes to Chinese characters, three characteristics – iconicity, systematicity and arbitrariness – can be found in terms of word formation.

3. Concluding remarks

This article has provided a thorough analysis of the arbitrariness of Chinese characters between sound and form, sound and meaning, and mainly form and meaning. In the last case, a detailed investigation of arbitrariness was carried out from the perspective of the four manners of word formation: pictographic characters, self-explanatory characters, associative characters and phono-semantic characters. Though it is widely believed that the form of a word bears an essentially arbitrary relation to its meaning and that arbitrariness is a universal feature of language, Chinese characters may not agree all to this principle because they combine iconic feature, arbitrary feature and systematic feature together. The analyses of this article demonstrate that a fully iconic vocabulary, or a fully systematic vocabulary, or a fully arbitrary vocabulary is unlikely to be a reliable feature of natural languages in learning and communication; Chinese characters are changing and adapting to their best for learning and communication.

A language consisting only of iconic words could never meet all out communicative needs (Bühler, 1990), such as abstract concepts, but iconicity assists word learning and communication, because we may rely on structural correspondences between meaning and patterns of words (Emmorey, 2014), which is very true to Chinese pictographic characters, some of self-explanatory characters and some associative characters. Systematicity can be an impediment to telling apart distinct referents, but systematicity assists category learning and categorization. We can learn nouns and verbs better if we have figured out the systematic correspondence between form and meaning, and this advantage can

extend to novel words. Arbitrariness may not be a stable feature of a language for leaning and communication, but it provides the greatest linguistic flexibility to “build bridges between the actual and the impossible; the concrete and the abstract; the physical and the mental; the past, present, and future; the ordinary and the sublime;” and very importantly, “between your brain and mine” (Gleitman & Reisberg, 2010).

Chinese characters as an ideographic language may provoke much difficulty and confusion when we learn to write them and speak them. However, their emphasis on form and meaning encourages the fact that Chinese people are able to communicate effortlessly via written form even though there are countless dialects in China. The ideographic language is essential to unite and consolidate the Chinese nation in a country with vast territory and various dialects. On the contrary, phonographic languages tend to change their forms when pronounced differently in various areas, which will definitely result in different languages ultimately. Probably, it is by means of phonographic languages that the Lord confused mankind’s languages. Suppose that if Europe had a common ideographic language, say, Chinese, there might be a closer and tighter European Union.

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