On the Arbitrary Nature of Linguistic Sign

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Abstract—Saussure is universally recognized the "father of modern linguistics". Saussurean linguistics marks the beginning of modern linguistics and the arbitrary nature of linguistic sign is called by Saussure "the first principle of linguistics". This paper approaches arbitrariness by (1) clarifying the definition of arbitrariness by Saussure, (2) discussing whether onomatopoeic words and interjections are counter-evidences of arbitrariness, (3) defining the two conditions under which Saussure put forward the principle and (4) finally elaborating on the explanatory power of arbitrariness from three different perspectives. The paper concludes that arbitrariness is the fundamental principle of linguistics, for it underlies many important distinctions (concepts) in modern linguistics and accounts for many linguistic phenomena.

Index Terms—Saussure, arbitrariness, conventionality, variability, invariability, productivity

I. INTRODUCTION

Ferdinand de Saussure is universally recognized the "father of modern linguistics" since he helped to set the study of language and even human behavior in a broad sense on a new footing. He is frequently quoted in the field of linguistics, semiotics and literary theory. Saussure is remembered mainly for his two great contributions to modern linguistics. One is that he points out the direction for linguistic study and clarifies the task of linguistics by defining language as a system of entities (or units) and their relations. The other is that he distinguishes between some important concepts, i.e. langue vs. parole, synchronic vs. diachronic, syntagmatic vs. paradigmatic, etc. In a certain sense, many researches in modern linguistics are intended to reveal the true nature and significance of these terms.

Although the position of Saussure in modern linguistics and semiotics is unquestionable, some of his ideas in general linguistics are far from being unanimously accepted. One of them is the arbitrary nature of language, the so-called "first principle of linguistics". There has been endless meditation over this principle in the academic circle. With the emergence and development of functional linguistics, cognitive linguistics and other linguistic disciplines, this principle has been much scrutinized and has met with unprecedented challenges. The present paper tries to clarify the concept of arbitrariness from different perspectives and defend the belief that arbitrariness is the first (basic) principle of linguistic signs by elaborating on the relationship between arbitrariness and other important concepts in Saussurean linguistics.

II. ARBITRARINESS: THE FIRST PRINCIPLE OF LINGUISTIC SIGN

In order to understand arbitrariness, we should first of all have a deep understanding of what a linguistic "sign" is. According to Saussure, a linguistic sign is a combination of a "concept" and a "sound pattern" in our associative mind. The "concept" is not an "object" although they are closely related in that when we talk about an object, it always arouses a reflection of something in our mind; and when we have something in mind, it always refers to something in the world. But "concept" is a more appropriate term since it can refer to not only the tangible physical objects in the real world but also those imagined objects or abstract ideas, such as "God", "beauty", "value", etc. The "sound pattern" is not actually a physical sound but "the hearer's psychological impression of a sound, as given to him by the evidences of his senses". (Saussure, 2001, p.66) These two elements are both psychological in nature, so "the linguistic sign is, then, a two-sided psychological entity". (Saussure, 2001, p.66) The following diagram is used to illustrate sign.
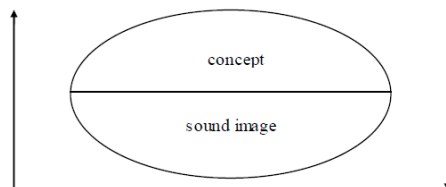
Subsequently, Saussure uses "signification" and "signal" to replace "concept" and "sound pattern" respectively and put forward his theory of arbitrariness:

The link between signal and signification is arbitrary. Since we are treating a sign as the combination in which a signal is associated with a signification, we can express this more simply as: the linguistic sign is arbitrary.

There is no internal connexion, for example, between the idea 'sister' and the French sequence of sounds *s-o-r* which acts as its signal. The same idea might as well be represented by any other sequence of sounds. This is demonstrated by differences between languages, and even by the existence of different languages. The signification 'ox' has as its signal b-o-f on one side of the frontier, but o-k-s (Ochs) on the other side. (Saussure, 2001, pp.67-68)

We can give more examples of this kind. In English, the concept DOG has the sound sequence /d g/ as its signal but is represented by /gou/ in Chinese. According to Saussure, there is no logical basis for the choice of a particular signal to refer to a particular signification. It is not the inherent physical properties of a signal that makes it suitable for the representation of a signification (concept) and it is not the characteristics of a signification that makes it choose a particular signal to represent it. So the linguistic sign is arbitrary, for there is no intrinsic connection between signal and signification, or the connection between a sound pattern and the concept the sound pattern refer to is arbitrary. In Saussure's terms, the so-called arbitrariness of a linguistic sign simply implies that it is "unmotivated": that is to say, the signal is "arbitrary in relation to its signification, with which it has no natural connexion in reality". (Saussure, 2001, p.69)

To sum up, three basic points are included in the definition of arbitrariness by Saussure: (1) a linguistic sign consists of two elements, a signal and a signification; (2) the signal and the signification are both psychological, so a sign is a two-sided psychological entity; (3) the connection between the signal and the signification is arbitrary or unmotivated.

One caution should be mentioned here that arbitrariness does not mean the free choice of a signal by the speaker. Arbitrariness is closely related with conventionality of language, by which we mean that all the members of a speech community agree to use a particular signal to refer to a particular signification. Once the relationship between a signal and a signification is established, it is not subject to any personal influence. It is obligatory for the speakers of a particular speech community to follow in order to communicate with others and function in the society.

Arbitrariness is not confined to the relationship between the signal and the signification. The signal and the signification themselves are arbitrary in nature. This is not directly mentioned by Saussure in his *Course in General Linguistics* but is implied by his elaboration on the value of the signal.

We say that the signal and the signification are arbitrary in that there is no one-to-one relationship between them within one language or across different languages. More specifically, different sound patterns or signals can be used to symbolize the same signification; different concepts or significations can be symbolized by the same signal. Examples of this kind are abundant in all languages. For example, "elevator" and "lift", "fall" and "autumn" and "sideway" and "pavement" mean exactly the same except that they are used in different regions. One single signifier /hé/ in Chinese can mean "river" (河), "dried" (涸) and "and" (和)。In the same way, different languages may employ different signals to symbolize the same concept (signification), for example,

Chinese	English	French
河流	river	fleuve
鸟	bird	oiseau
树	tree	arbre
书	book	livre

In addition, sometimes two or more different significations (concepts) may be symbolized by one signal in one language but by different signals in another language. English and French offer us many examples in point.

French	Chinese	English
mouton	绵羊	sheep
mouton	羊肉	mutton
mouton	羊皮革	sheep
porc	猪	pig
porc	猪肉	pork
porc	猪皮皮革	pig

(cited from Pei, 2006, p.197)

All these examples show that different languages make use of different signals to categorizing the world in different ways. Not only are the signals chosen by a particular language arbitrary but also the significations, the result of categorization, are arbitrary.

Actually, the arbitrary nature of signal implies the linguistic relativity by Sapir and Whorf. Every language has a definite number of sounds and rules for their combinations, which are used to (categorize) cut up the world in different ways. We live in the same world, but the languages we happen to speak categorize the world in different ways. We have to observe the world through the categories defined by our languages and consequently form our unique worldviews.

III. ONOMATOPEIC WORDS AND INTERJECTIONS: COUNTEREVIDENCE OF ARBITRARINESS

In any language, two objections may be brought against the principle that linguistic signs are arbitrary. One is onomatopoeic words and the other is exclamations.

Onomatopoeic words came into being by imitation of natural sounds. They are echoic words whose sounds suggest

their senses. These words help us form mental pictures about the people, things or places that are described. Onomatopoeic words can be divided into two groups: primary onomatopoeic words and secondary onomatopoeic words. The former means the imitation of sound by sound. Specifically, the sound is truly an "echo of the sense": the reference itself is an acoustic experience which is more or less closely imitated by the phonetic structure of the word, such as *bang*, *crash*, *bump*, *bubble*, *gurgle*, *growl*, etc. By secondary onomatopoeic words we mean that certain sounds and sound-sequences are associated with certain senses in an expressive relationship. In other words, these sounds do not evoke an acoustic experience but a movement or some physical or moral quality, usually unfavorable. These onomatopoeic terms have certain elements in common. Bloomfield (2000, p.245) states that there is a system of initial and final root-forming morphemes, of vague signification, with which the intense, symbolic connotation of such terms is associated. For example, *gr-* is associated with oppressiveness, as in *groan*, *growl* and *grumble*; *sl-* is associated with the action of sliding, as in *slide*, *sloppy*, *slope*, and *sly*; *sn-* expresses three different kinds of experience, "breath-noise through nose" as in *sniff*, *snuff*, *snore* and *snort*, "short quick separation or movement" as in *snip*, *snap* and *snatch*, and "creeping" as in *snake*, *snail*, *sneak* and *snoop*; *-are* may express "big light or noise" as in *blare*, *glare*, *flare* and *stare*.

However, onomatopoeic words are only closest but never exact imitation of natural sounds in that each language has a definite number of speech sounds and phonotactic rules (rules for the forming of legitimate combinations of sounds). They are subject to the phonetic and phonological restriction of language. It is theoretically impossible for the existence of exact onomatopoeic words. For the same referent in the actual world, different languages may employ different sounds patterns to represent it, such as a French dog's *ouaoua*, a German dog's *wauwau*, an English dog's *wow-wow* and a Chinese dog's *wang-wang* ("汪汪"in Chinese characters) This does not mean that the dogs in these four different countries actually call differently, but only that each language can only select from the repertoire of sounds available to itself the sounds similar to the call of a g dog and combine them according to the phonotactic rules specific to itself. The result is only approximate imitation of dog's call. In addition, as Saussure stated, "in any case, once introduced into the language, onomatopoeic words are subjected to the same phonetic and morphological evolution as other words." (Saussure, 2001, p.69) A possible result may be that with the development of language, a word of onomatopoeic origin may gradually become unmotivated. A good case in point is the French word *pigeon*.

Similar considerations apply to exclamations. They are generally regarded as spontaneous expressions called forth by nature. But it is doubtful that there is a necessary link between the exclamatory signal and its signification and as the case with onomatopoeic words, different languages employ different exclamatory words to express the same feeling.

In short, onomatopoeic words and exclamatory words are marginal phenomena in that they are limited in number and their symbolic origin is to some extent disputable. They do not undermine the validity of the arbitrary nature of language. On the contrary, they provide more evidences for the arbitrary nature of language.

IV. TWO PREREQUISITE CONDITIONS FOR ARBITRARINESS

Arbitrariness is called by Saussure the first principle of linguistic sign. This statement has aroused much debates and misunderstanding. To truly understand arbitrariness, we should look at under what conditions Saussure put forward this principle.

A. *Arbitrariness in Relation to the Distinction between Synchronic and Diachronic*

The first condition is the distinction between synchronic linguistics and diachronic linguistics. We should confine arbitrariness to the synchronic sphere. "The sole object of study in linguistics is the normal, regular existence of a language already established". (Saussure, 2001, p.72) By this statement, Saussure confines his study of langue to the sphere of synchronic linguistics.

Saussure was not the first to put forward the creative idea of arbitrariness. In the 19th century, Whitney (1875, p.282) stated the arbitrary nature of linguistic sign. However, Whitney was after all a linguist in the 19th century when historical linguistics was at its hey day, so he regarded the historical comparison of different languages and the discovery of their genetic relationships as the goal of linguistic study. Once language was approached from a diachronic approach, the arbitrary nature of language was out of effect. Grimm (1851, p.41) once stated that the origin of any element in a language was motivated and any letter was created to mean something so that no letter was redundant. It seemed that Grimm expounded a thought of extreme teleology, but the idea conformed to our common sense: historically speaking, there should be no linguistic sign of absolute arbitrariness and the relationship between the pronunciation (or the sound) and meaning (or the concept) of a word could not be arbitrarily established. Why is the animal DOG called /dɔg/ by our ancestors but not by any other name? There should be some underlying reason. But the motivation has gradually lost with time going by. Nowadays, no trace of motivation exists for the word *dog*. The loss of motivation does not mean that there was no motivation when the sigh was first created. For we language users, it is enough for us to master the rules of linguistic signs in order to use a language. It is not necessary for us to know where the linguistic signs are from. For linguists of synchronic linguistics, the object of their study is the formation and operation of the linguistic signs and therefore they do not need to investigate the origin of these signs. It is only necessary for linguists of diachronic linguistics to not only investigate the origin of linguistic signs but also adhere to the conviction that the relationship between the sound and the meaning of the linguistic sign is motivated.

We only speak of arbitrariness synchronically.

B. *Distinction between Absolute Arbitrariness and Relative Arbitrariness*

Saussure draws a distinction between intrinsic arbitrariness and relative arbitrariness. That is, he does not deny the existence of motivation in language. He says, "not all signs are absolutely arbitrary", and "the sign may be motivated to a certain extent." (Saussure, 2001, p.130) For example, the word *twenty* is absolutely arbitrary or unmotivated while *twenty-one* is relatively arbitrary, for the former is unanalyzable and therefore evokes no association with other words but the latter evokes the words of which it is composed, *twenty* and *one*, and those of the same numerical series: *twenty-two, twenty-three, thirty-two*, etc. Taken individually, *twenty* and *one* are on the same footing, that is, absolutely arbitrary. However, once these two individual words are established in English as two legal signs to represent two relevant numbers, the meaning of their combination *twenty-one* is deducible and thus motivated to a certain extent. Actually, any word composed of more than one morpheme can be interpreted based on its morphological structure. That is to say, there exists motivation for polymorphemic words, "but motivation is always more marked if the syntagmatic analysis is more straightforward and the meaning of the constituent units more obvious". (Saussure, 2001, p.130) Some formative elements are transparent enough, such as suffixes *er* and *ian* in such words as *teacher* and *musician*; others are of indefinite meaning, or altogether obscure, such as *ceive* and *tain* in *receive, deceive, conceive* and *contain, maintain* and *retain*.

Can we deny the arbitrary nature of linguistic sign just because of the existence of motivation? Absolutely no. Actually, we can see from the examples mentioned above that a poly-morphemic word is motivated only in terms of the syntagmatic and paradigmatic relations between the constituent morphemes. This is a "post-linguistic" phenomenon. (Gao, 1995, p.23) That is, we can regard such words as the result of using the linguistic elements already available, but not the core elements of a language. For example, the word *teacher* is motivated in that we can deduce it meaning from its constituent elements *teach* and *–er*. But *teacher* is the result of combining two elements *teach* and *–er* and its meaning is deduced from the syntagmatic relation between its two constituent elements. It is "post-linguistic". Without the two arbitrary elements *teach* and *–er*, there would be no motivated *teacher*.

Linguistic sign is arbitrary in nature.

We can see that only under the two conditions mentioned above is it theoretically possible and reasonable to propose arbitrariness. Without these two conditions, arbitrariness can not stand.

V. Explanatory Power of Arbitrariness: Arbitrariness in Relation to Other Concepts in Saussurean Linguistics

We say arbitrariness is the first principle of Saussurean linguistics, for it is the foundation stone for Saussurean linguistics and modern linguistics. This principle underlies many important distinctions (concepts) in the theoretical system of modern linguistics and accounts for many linguistic phenomena. Zhang Shaojie (2004, p.2) says "actually, arbitrariness is the starting point for understanding Saussure's linguistic thoughts, for all his linguistic theories are based upon the arbitrary nature of language". Here due to the limit of space, we only look at the explanatory power through three perspectives: arbitrariness in relation to the invariability and variability of the linguistic sign, arbitrariness in relation to the creativity of language and arbitrariness in relation to semantic gaps and exceptions in linguistic regularity.

A. *Arbitrariness in Relation to the Invariability and Variability of the Sign*

As is known to all, a language is always an inheritance from the past and every society has no choice but to accept it. Any given linguistic state is always the product of historical factors. This accounts for the invariability of the linguistic sign. But linguistic signs do change. The passage of time, on the one hand, ensures the continuity of a language, and on the other hand, works in the opposite direction. We have seen that linguistic signs in any language have changed with some rapidity. So variability and invariability are both characteristic of the linguistic sign.

Then how can we explain the variability and invariability of the linguistic sign? Saussure relates these two characteristics of the linguistic sign both with the arbitrary nature of language. As for the invariability of the linguistic sign, Saussure thinks that the arbitrary nature of the linguistic sign is the underlying reason since this very nature "tends to protect a language against any attempt to change it". (Saussure, 2001, p.73) In order to change something, there should be some issue to discuss and "there must be some reason for discussion." (Saussure, 2001, p.73) Saussure cites monogamy and polygamy to make an analogy. We can adduce reasons for or against the statement that monogamy is better than polygamy, that is to say, we have some basis to discuss this matter, but for a language, a system of arbitrary signs, this basis is lacking and, therefore, there is no ground for discussion. No reason can be given for preferring *mother* to *mère, brother* to *frère*, etc.

As for the variability of the linguistic sign, Saussure thinks that the arbitrary nature of language provides the theoretical possibility, for "since linguistic sign is arbitrary, a language as so far defined would appear to be an adaptable system, which can be organized in any way one likes, and is based solely upon a principle of rationality". (Saussure, 2001, p.78) Language is both a product of historical factors and a social fact. As a product of historical factors, language records the life of its speakers in the past by means of its signs and the rules for their combination; as a social fact, language has to be adapted to the new situations and conditions of the present life. In order to better serve as a tool for human existence, we have to change linguistic signs.

Arbitrariness well explains the invariability and variability of a linguistic sign.

B. Arbitrariness in Relation to the Creativity of Language

The arbitrary nature of language can explain how linguistic rules come into being, or more specifically, why language is creative. The origin of a linguistic sign, that is, the combination of a sound pattern and a concept, is unmotivated. But once it is created and accepted by the speech community, it becomes creative. It can be used to form new signs. –*Gate* as a suffix is good example in case. *Watergate* was originally the name of a complex building in Washington D.C. It is just because the democratic party planted a bug at Watergate that –*gate*, which was originally having nothing to do with political scandal, began to be unexpectedly associated with political scandals. Several new words containing this suffix have been created, such as *Winegate*, *Ricegate*, *Debategate*, *Zippergate*, etc. Interesting enough, this suffix has been borrowed into Chinese and become very productive. Nowadays, almost every kind of scandal can be called ×××门, such as "艳照门", "兽兽门", "挤奶门", etc.

We can see that any linguistic rule is formed by analogizing an arbitrary linguistic model, thus the result of rational analogy of an arbitrary model. In turn, the linguistic forms resulted from the analogy are the materials from which to summarize linguistic rules. The rules summarized are obligatory for the speakers of a speech community and therefore are used to create more linguistic forms. However, we should not forget the arbitrary nature of language, which is the fundamental principle underlying all linguistic signs.

C. Arbitrariness in Relation to Semantic Gaps and Exceptions in Linguistic Regularity

By comparison of two languages, such as English and Chinese, we can easily find that there are always some semantic gaps in one language, that is, there is a word in one language which corresponds to a particular concept but such a word does not exist in another language. For example,

English	**Chinese**
a ¢ book	一本书
a ¢ tree	一棵树
a ¢ dog	一条狗
a pack of wolves	一群狼
a flock of pigeons	一群鸽子
a herd of cattle	一群牛
English	**Chinese**
¢	果
fruit	水果
nut	坚果

Besides, there are always exceptions for any linguistic rule, which has by no means uniformity. For example, in English some sentence idioms do not conform to grammatical rules, that is, they are grammatically unanalysable. For example, *diamond cut diamond* (two parties are equally matched) is grammatically incorrect, for normally the verb *cut* should take the third person singular –*s* as the subject *diamond* is singular. Meanwhile there exists a structurally similar idiom *like cures like*, in which –*s* cannot be deleted. *As sure as eggs is eggs* (quite certainly) may serve as another example. The verb *is* in the idiom should be *are* to agree with grammar. However, we use it as it is. It is grammatically wrong, but idiomatic and widely accepted. In Chinese, if we eat in a canteen, we can say "吃食堂" but we never use similar structures such as "吃宾馆", "吃家里" even if we eat in a hotel or at home.

The phenomena of semantic gaps and exceptions in grammatical rules mentioned above can be only based on the arbitrary nature of language. Objects come into being prior to the linguistic signs, and linguistic signs come into being prior to the linguistic rules. The so-called grammatical rules, linguistic regularities and motivations of linguistic signs are just the stagnant summarization of the probabilities of linguistic facts. This is why we have some semantic gaps and exceptions of linguistic regularities. The legitimate existence of semantic gaps in a language is made possible by the fact that the signal and the signification have no intrinsic connection. It is just because the linguistic signs come into being prior to the linguistic rule, it is possible for the exceptions to exist. Without the arbitrary nature of the linguistic sign, there would be no reasonable ground for the existence of semantic gaps and exceptions in linguistic regularities.

The grammatical rules are just like the meteorological regularities we summarize, to which there are always exceptions. We can not conclude that meteorological phenomena are regular just because we can summarize some meteorological regularities. Exceptions of linguistic regularities are just like the weather not correctly predicted. If the regularity exists before the fact, there would be no exceptions. The existence of linguistic exceptions is a ready counter-evidence that our linguistic signs are motivated.

In conclusion, arbitrariness is the fundamental principle of linguistics. Only when we have a deep understanding of arbitrariness can we understand other important concepts in linguistics and some linguistic phenomena.

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