

Retrospect and Prospect of the Research on Finiteness

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Abstract—Finiteness has long been a controversial category. In particular, on its cross-language definition criteria, the academia has not reached a consensus so far. An examination of the trend of the research on finiteness can provide reference for its further study. The paper makes a systematic investigation into the research on finiteness, and finds that the research of finiteness has a tendency from phenotype to cryptotype, from verb to clause, from syntax to function, from monolingual perspective to typological one. From this trend, it can be inferred that the definition criteria of finiteness can be made more explicit if these features are integrated into its future study.

Index Terms—finiteness, non-finiteness, typology

I. INTRODUCTION

Finiteness, opposite to non-finiteness, refers to the grammatical form that restricts the verb. According to Nikolaeva (2007), the notion of finiteness as a grammar category is originated from the study of Latin verb classification by Priscianus Caesariensis in his *Institutiones Grammaticae*. In Latin sentences, the predicate verb needs to agree with the subject in person and number, whereby the verb obtains the property of person and number in the form of cross-reference. Thus, the verb gets its division of finiteness and non-finiteness in class: the one limited by person and number is finite, otherwise non-finite (Cristofaro, 2003; Zhang, 2016). Henceforth, researchers begin a broader investigation of finiteness among more languages, including non-morphological languages, as well as morphological ones. However, so far researchers have not reached consensus on the standard of cross-language definition of finiteness. Therefore, it will be of academic value to predict the future trend of finiteness research. In view of this, this paper first combs and analyzes the finiteness research, and provides a forecast of the future trend in finiteness research.

II. THE RESEARCH OF FINITENESS IN MORPHOLOGICAL LANGUAGES

As mentioned, the notion of finiteness is derived from the categorization of the Latin verbs, then is extended to other morphological languages, and finally to non-morphological languages. The study of finiteness in morphological languages focuses mainly on a general criterion of the finiteness on a cross-language basis, which has undergone a dynamic transition of categories from the explicit to the implicit. Generally, the perspectives of finiteness study cover morphological grammar, generative linguistics, cognitive linguistics, functional linguistics and linguistic typology, etc.

A. Morphological Grammar

The research in this perspective mainly follows the defining standard of Latin verb finiteness by adopting the morphological properties of the verb, including the agreement of finiteness with Subject. Accordingly, the finiteness of the verb is defined as person, number and tense (Huddleston, 1988; Hogg, 1992). However, the universality of this conclusion is questionable. For example, in Akhvakh, the nonfinite structure can also serve as the main clause (Creissels, 2009).

B. Generative Linguistics

Generative linguistics regards finiteness as the property of the clause, making it possible to overcome the limitation of the traditional standard. In its early period, generative linguistics takes finiteness as AUX node, but latter replaces it with INFL (Chomsky, 1981). The Generative Perspective transcends the limits of the cognition of the rank scale of the finiteness, but its standard is still based on morphology and cannot cover all the relevant features of finiteness of all languages. Therefore, its universality across languages has been questioned by such scholars as Noonan (1985), Palmer (1986), etc.

C. Cognitive Linguistics

Cognitive linguistics mainly concentrates on the cognitive processing of finiteness (Nikolaeva, 2007). Langacker (1987, 1991) explores finiteness with two notions: process and grounding. Process is represented as a cognitive entity

which is encoded prototypically by the verb. Process involves a successive range of states with various phases which are realized by sequential scanning. Grounding is the semantic function by which cognitive entities enter the ground. For process, grounding is accessed through the specification of modality and tense on the verb: the former assigns a process to the known reality, while the latter anchors a designated process to the time of the speech event.

D. Systemic Functional Linguistics

Systemic Functional Linguistics (SFL) puts more emphasis on the meaning potential of finiteness. Halliday (1994) and Halliday and Matthiessen (2014) explore the grammatical representation of lexicogrammar of finiteness. According to SFL, finiteness is defined as the experiential structure of the verb which carries Primary Tense and Modality that nonfinite clause lacks. In a finite clause, finiteness and Subject constitute Mood that provides grammar resource for the arguability of the proposition.

E. Linguistic Typology

Currently, the researchers who discuss finiteness from the perspective of linguistic typology mainly include Givón (1984, 1990) and Johns and Smallwood (1999) (Nikolaeva, 2007). Givón (1984, 1990) proposes that dependent events cannot be conceptualized as independent processes but as those of main events, and this thematic dependence corresponds to the syntactic dependence of the clause. In this process, there is a structural reduction of the clause as a result of the loss of finiteness. The reduction occurs on a language-specific basis. And between the two extremes of finiteness and non-finiteness, there are many intermediate situations. Johns and Smallwood (1999) find that, among three features of finiteness, i.e. clausehood (MC), tense (T), and agreement (Agr), there are eight possible combinations, at least four of which are related to “non-finiteness” in description: -MC-T-Agr (English infinitives), +MC-T-Agr (Russian and Middle Welsh infinitives), -MC-T+Agr (European Portuguese infinitives), and -MC+T-Agr (Tamil and Lezgian participles). They also point out that finite morphology and dependent/independent position tend to be empirically variable.

III. THE RESEARCH OF FINITENESS IN NON-MORPHOLOGICAL LANGUAGES

It is indisputable that finiteness exists in morphological languages such as Latin and English (although its cross-language definition still remains uncertain), but it is certainly disputable whether the category of finiteness exists in non-morphological languages and how to define them if it does. The present literature shows that the present study of finiteness in non-morphological languages mostly focuses on that of Chinese, and the research is mainly concentrated on two disputes, i.e. whether finiteness exists and how finiteness should be defined.

A. The Dispute of Whether Finiteness Exists

Lǚ, (1947/2005) and Wang L. (1954) first mention that there is no such syntactic category as finiteness in the Chinese language. It is Huang C. T. who formally proposes for the first time that there exists finiteness in Chinese. He (Huang C. T., 1982, 1984) indicates that although Chinese lacks temporal markers, its finiteness still can be defined by other means. In response to this proposal, Zhu (1985), Xu (1986) and other scholars successively put forward their opposite opinions, which starts a dispute about the existence of Chinese finiteness.

Other scholars who advocate the existence of finiteness in Chinese include Huang Y. (1994, 1995), Li T. G. (1999), Hu *et al.* (2001), Li R. Y. (2003), Lin (2006), Liu (2010), etc., among whom the vast majority think that Chinese has the pair of opposite categories of finiteness and non-finiteness. A few scholars, however, think that there is only one category in Chinese. For instance, Huang Y. (1994, 1995) maintains that all clauses in Chinese are finite, and Li R.Y. (2003) claims that all clauses in Chinese are nonfinite.

B. The Dispute of How Finiteness Should Be Defined

Among scholars who advocate the existence of finiteness in Chinese, there is still no consensus on the criterion of finiteness. The criteria they propose involve modality/aspect, components' relationship, temporal dimension, etc.

Huang C. T. (1982, 1984) suggests that modal verbs and aspect markers in Chinese should be used as an effective means to distinguish finiteness from non-finiteness, i.e. clauses with modal verbs or aspect markers are finite, while clauses without these markers are nonfinite. He further divides Chinese verbs into two classes: Class A verbs and Class B verbs. The former are verbs that can co-occur with modal verbs or aspect markers, such as *shuo* (say), *xiangxin* (believe), etc. which are followed by finite clauses, while the latter are control verbs that cannot co-occur with modal verbs or aspect markers, such as *zhunbei* (prepare), *shefa* (try) etc. which are followed by nonfinite clauses.

In response to Huang's opinion, Li Y. H. (1985, 1990) points out that the criterion of modality/aspect is not universal, because some Class A verbs, *qing* (please) for example, can also be followed by clauses with aspect markers. She proposes that only the structures that combine modality markers or aspect markers can become effective means to distinguish finiteness from non-finiteness, such as *hui* (will), *yao* (want) etc. She further distinguishes verbs of *gaosu* (tell) class from verbs of *shuofu* (persuade) class, and holds that the former are followed by finite clauses while the latter by nonfinite clauses.

Those who hold the criterion of component relationship mostly arrive at their conclusion by making analogical reasoning from the comparison of the components between English and Chinese sentences. Yang C. K. (1991) points

out that, in Chinese, clauses with verbs as predicates can also act as subjects and objects, which is very similar to the nonfinite verbs in English. Therefore, he proposes that the Chinese language should also have counterparts of finite vs. nonfinite in English. Tan (1993) finds that verbs tend to change in the word order when they are chosen to express all-around meaning. For example, in the two sentences of *ta chi miantiao, fang lajiao* (He seasons with pepper when he eats noodles) and *ta chi miantiao, shenme dou fang* (He seasons with anything when he eats noodles), the former has the structure of V + O, while the latter has the structure of O + V. Therefore, she proposes that Chinese, like English, should also have infinitive structure, which tends to repel all-around expressions, and should be classified as the nonfinite structure, while those verbs that can choose all-around expressions should be viewed as the finite structure. In addition, there are also scholars who make the distinction in accordance with the relationship between the components of Chinese clauses. For example, Yang B. J. (2015) divides the Chinese clause into six categories from “the typical finiteness clause” to “the typical nonfinite clause” by using three dynamic parameters of the Chinese clause: whether the subject exists, whether the verb is the predicate, whether the verb changes with person and number.

There are also researchers who see temporality as the standard of distinguishing finiteness from non-finiteness in Chinese. For example, Shi (1995, 2001) points out that the essence of finiteness of the Chinese verb lies in the time information of the action behavior represented by the verb, i.e. one-dimension of time: in the same sentence, if there are multiple verbs co-occurring at the same time, only one verb can obtain the grammatical features related to time information, and this verb is finite.

The standards mentioned above are all based on syntactic relations, and are still limited to the lexical and grammatical level, which cannot fully cover all linguistic facts. Therefore, their universality remains controversial. In view of this, some scholars attempt at the concept of function and explore the cross-language standard from the semantic level. For example, Zhang (2016), Zhang and Yang (2016), Cao (2018) argue that the standard of defining finiteness cross language should start from the semantics, and explore its manifestation in lexicogrammar stratum according to the constructing potential in the semantic stratum. Besides, He and Zhong (2017, 2018) also advocate to divide the finite and nonfinite clauses in Chinese from the perspective of interpersonal function, and point out that the clause with the primary tense should be finite, and the one without temporal markers or only with the secondary tense are nonfinite.

IV. THE TENDENCY OF THE FINITENESS RESEARCH

Based on the above analysis of the finiteness literature, we can sum up four trends of the current research of finiteness, i.e. 1) from phenotype to cryptotype; 2) from verb to clause; 3) from syntax to function; 4) from monolingual to typology.

A. From Phenotype to Cryptotype

According to the theory of Grammatical Category proposed by Whorf (1945), there exist overt categories and covert categories in human languages. The overt categories, also called the phenotype, refers to the grammatical category with distinguishing formal markers; the covert category is also called the cryptotype, whose covert category cannot be seen directly, and can only be noticed when its components containing the category are used or treated specially.

It can be seen from the analysis above that the attention on finiteness category are initially paid to the most inflectious language (Latin), then to the less inflectious languages (such as English), and finally to the languages without inflections (such as Chinese). This shows that the study of finiteness is carried out along the path of development “from phenotype to cryptotype”. This trend reveals a transition from individuality to generality in the process of linguistic exploration of the finiteness category.

B. From Verb to Clause

At the outset, the traditional grammar thinks of finiteness as the property the verb. The same is also true for the morphological grammar. They both define finiteness by virtue of the morphological characteristics of the verb. Latter research, including that of the generative grammar and the functional school, regards finiteness as the property of the clause, and investigates finiteness in accordance with the configurational relationship between finiteness and other components in the clause (or clause complex). The same trend is also applicable for the research of finiteness in Chinese, in which finiteness is also initially regarded as the attribute of verbs, such as Yang C. K. (1991), Tan (1993), etc., and later is regarded as the attribute of the clause, such as Yang B. J. (2015), He and Zhong (2018), etc. Therefore, it can be seen that the academia’s understanding of the attribution of rank scale of finiteness has gone through the process from the verbs to the clause.

It is of great theoretical significance for the research of the universal standard of finiteness to expand its understanding of the attribute of the rank scale from verb to clause. It is obviously a paradigm of holistic analysis to put the target category in the overall scope of a given meaning dimension for background investigation, and to seek regular understanding by exploring the configurational relationship between the finiteness and other categories. According to this paradigm, the clause is the center of lexicogrammar, which provides a broader observing platform for grammatical units of lower level, because the investigation of these components can only be understood or realized in the relevant clause system (Matthiessen 2001; Zhang 2016). Therefore, although the relationship between finiteness and the verb is

very close, it is more conducive to reveal the potential of finiteness and the criteria of its universality across languages by examining it in the context of the clause.

C. From Syntax to Function

From the perspective of stratification (Halliday and Matthiessen, 2014), the study of finiteness follows a trend from lexicogrammar to semantics. As described above, the focus of academia on finiteness begins with morphological features, and then comes to the construing potential of finiteness function, following the track of “morphology → function”.

In terms of the commonness and difference of human languages, the features in the lexicogrammar stratum are different, while the function (meaning potential) in the semantic stratum is common in all human languages (Caffarel *et al.*, 2004). Therefore, it is infeasible to seek the universal definition of finiteness only at the lexicogrammar stratum. However, if we do so based on the functional potential of finiteness at both the semantic and the lexicogrammar, it will be easier to approach the goal of finding a universal definition of finiteness as a common linguistic category.

D. From Monolingual Perspective to Typological Perspective

By the time the study of finiteness begins with Latin, the finiteness is regarded as the individual characteristics of a single language. When the academia begins to explore a universal criterion of finiteness across languages, finiteness has been regarded as a common characteristic of human languages, and it already has the need and the trend of linguistic typology. The present typological study provides a feasible way to the study of finiteness as the embodiment of common potential and difference. However, since it is only based on the morphological characteristics, the persuasiveness of the research conclusions is relatively limited.

V. THE OUTLOOK OF FINITENESS RESEARCH

The four trends of finiteness research are not accidental and discrete, but inevitable and inseparable. As discussed previously, the shift of the grammatical category of finiteness from phenotype to cryptotype reflects the trend of the exploration from linguistic individuality to generality, and the problem of linguistic generality and individuality of finiteness is what linguistic typology focuses on and strives to solve. Since the clause is the link between the lexicogrammar and the semantics (Halliday and Matthiessen, 2014), the shift from verb to clause and the shift from lexicogrammar to semantics have much in common. In addition, the understanding turn of finiteness' strata also provide a broader horizon for typological research of finiteness. This shows that, if the four trends can be combined in the future study, it will be easier to figure out the universal definition of finiteness. Therefore, if the future research of finiteness can take the perspective of typology, involve as many languages (including morphological and non-morphological languages) as possible, attribute the finiteness to the property of the clause, meanwhile explore the meaning potential in common based on the lexicogrammar and seek different realizations in the lexicogrammar based on its meaning potential, the cross-language definition of finiteness will be more accessible.

VI. CONCLUSION

The research of finiteness mainly focuses on its universal definition, which has gone through the process from individual concern to common exploration. From the perspective of the research trend of finiteness, the future study on finiteness may regard finiteness as both a grammatical category and a semantic one, and the horizon should be extended from the lexicogrammar to the semantics, taking into account the two directions of “bottom-up” and “top-down”. At the same time, if the perspective of linguistic typology involves more morphological and nonmorphological languages, the dispute on the cross-language criterion of finiteness will be easier to solve. Therefore, it is of much academic value to seek a suitable theory of linguistic typology, and to explore the universal definition criteria based on the typological theory.

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