

# Abstracts of Lectures

## Lecture 1

### Title:

Or Else, What? The Problem of Mixed Moods

### Speaker:

Frank Veltman, Institute for Logic, Language and Computation

### Abstract:

Most philosophers of language would say that declarative sentences have a truth value, and that imperative sentences do not. A declarative sentence denotes a proposition, an imperative sentence denotes something else. There is no consensus about what exactly the denotation of an imperative would be.

However, if declaratives and imperatives denote different kind of objects then what is the denotation of sentences like 'Stop or I'll shoot you!', or 'Stop and I'll shoot you!' !in which these different moods are put together? To deal with sentences like this we need a uniform notion of meaning that is applicable to both declaratives and imperatives. The framework of update semantics offers such a notion.

In my talk I will apply it to analyse pseudo-imperatives like the ones quoted above.

## Lecture 2

### Title:

Exhaustivity in Focus Association

### Speaker:

Jianhua Hu, Institute of Linguistics, Chinese Academy of Social Sciences

### Abstract:

It has been observed that the English universal A-quantifiers *always* and *only* exhibit different properties in terms of sensitivity and exhaustivity in focus interpretation. While *always* allows for a non-exhaustive interpretation, *only* can only have an exhaustive interpretation when associated with focus. Under Beaver and Clark's (2003) analysis, the difference between *always* and *only* is accounted for by the former one's dependency on the context and the latter one's lexical encoding of a dependency on focus. This paper shows that besides these two kinds of A-quantifiers, Chinese has another type of A-quantifiers that can be grouped into neither the *always*-type nor the *only*-type in distribution and interpretation. These A-quantifiers may be termed as the intermediate type of A-quantifiers when compared with those at the two opposite sides represented by *zong(shi)* and *zhi* respectively. The

intermediate type of A-quantifiers, represented by *dou*, bears the universal quantificational force as do *zong(shi)* and *zhi*, the Chinese counterparts to the English *always* and *only*. For instance, in the following sentence, *dou* may occur either with or without being associated with a focus.

(1) Ta dou shuo English. "He only speaks English/He always speaks English."

If the object NP *English* bears focus, (1) means that *he only speaks English*. In addition to this reading, (1) has another interpretation where *English* is not in focus. In the latter reading, *dou* can be interpreted as *always*, which, as an adverb of quantification, may have the following representation (Pan 2006).

(2) DOU[s ∈ set of situations][he speaks English in s]  
 $\forall s [s \in \text{set of situations} \rightarrow \text{he speaks English in } s]$

It is shown that while *zong(shi)* and *zhi* are clearly distinguished with respect to focus sensitivity and exhaustivity, the intermediate type of A-quantifiers often blurs such a distinction. Although *dou* sometime behaves like *zong(shi)* and sometimes behaves like *zhi*, it may not be treated as a counterpart to either of them. (3) shows that the replacement of *zong(shi)* by *dou* would result in contradiction in interpretation of the two clauses linked by *ye* 'also', and (4) shows that *dou* cannot be used as *zhi* when there is an aspect marker such as *guo* or *le* in the sentence.

(3) a. ta zong(shi) qu [Beida]<sup>F</sup> ting baogao, ta ye zong(shi) qu [Tsinghua]<sup>F</sup> ting baogao. "He always goes to Peking University to attend lectures, and he also always goes to Tsinghua University to attend lectures."  
 b. ??ta dou qu [Beida]<sup>F</sup> ting baogao, ta ye dou qu [Tsinghua]<sup>F</sup> ting baogao.

(4) a. ta zhi qu guo/le [Beida]<sup>F</sup> ting baogao. "He only went to Peking University to attend lectures"  
 b. \*ta dou qu guo/le [Beida]<sup>F</sup> ting baogao.

In this paper, we argue that *dou* and *zong(shi)* occupy different syntactic positions and are thus operators that bind different kinds of variables: *dou* is an event variable binder whereas *zong(shi)* is a situation variable binder. Under our analysis, the focus sensitivity of *zong(shi)* and *dou* are parasitic on their respective binding of situation variables and event variables. An important point to notice is that their occurrence in the sentence may not require focus association. In this respect, *zhi* differs from *zong(shi)* and *dou* fundamentally. *Zhi* may occur without binding a situation variable or an event variable, but it must be associated with the focus, given that its occurrence must be licensed by the placement of focus.

## Lecture 3

Title:

## Research on Categorical Type Logic Based on Case Grammar

### **Speaker:**

Chongli Zou, Institute of Philosophy, Chinese Academy of Social Sciences

Jiayue Cui, Graduate school of Chinese academy of social sciences

### **Abstract:**

The basic thought underlying case grammar is that: natural language sentence is verb-centered, and the arguments of verbs are filled by nouns which assume different case roles. Composite expressions consist of their parts which are accordingly divided into head constituents and non-head constituents; case grammar is a polychotomous mode of grammar. In the analysis of case grammar, the syntactic functions of verb will vary with the change of the number of nominal constituents around it. Verbs-centeredness is embodied in various structures of Mandarin Chinese, such as doubt-object structures, multiple pre/post-verb structures, etc. which are examples treated in the polychotomous analysis. The nouns own optional case in Mandarin Chinese lead to change of syntactic function of verbs. The categorical abstraction on case grammar results in a new system of Categorical Type Logic (CTL), in which the left product and the right product are distinguished due to the division of head constituents and non-head constituents; the categories of functor and product are characterized by their multi-arguments due to the analysis of polychotomy; and the change of verb's grammatical function leads to variation of the number of arguments for those functor categories. The accessibility of frame semantics in CTL is pluralistic. Based on such a frame, a semantic model can be constructed to prove soundness and completeness of the system.

## Lecture 4

### **Title:**

What is logic?

### **Speaker:**

Francis Y. Lin, School of Foreign Languages, Beihang University

### **Abstract:**

Logic has existed since the time of Aristotle, but what it is has not been clear. Logic is similar to mathematics in the sense that they are both formal systems. Mathematics is arguably objective: it is about the laws of nature. But what about logic? Is it objective? If yes, where does the objectivity lie? In this talk, I will first present the later Wittgenstein's philosophy of mathematics. I will then proceed to discuss the nature of logic, and the nature of logic of ordinary language.

## Lecture 5

### **Title:**

Vague Classes and a Resolution of the Paradox of the Bald Man

**Speaker:**

Beihai Zou, Department of Philosophy, Peking University

Liyang Zhang, School of Culture and Communication, Central University of Finance and Economics

**Abstract:**

In this paper, we introduce the concept of vague class, based on which, we give a resolution to bald paradox, and explain why bald paradox arises. In formalization part, we add equality symbol  $x = y$  and monadic predicate  $P(x)$  to first order language. Based on  $x = y$  and  $P(x)$ , vague predicate are formalized in first-order expanding language  $L^*$ , then vague class are captured in first-order way. Capture vague predicate (vague class) in expanding first-order language is a new method to deal with vagueness, which is different from other approaches that try to capture vagueness by introduce different truth value(s).

## Lecture 6

**Title:**

Some Applications of Type-Logical Categorical Grammar in Mandarin Chinese

**Speaker:**

Xin Wang, School of Foreign Languages, Beijing Language and Culture University

**Abstract:**

Despite the high efficiency of type-logical categorical grammar (TLCG henceforth) in the study of English (as, for example, such textbooks as Carpenter (1997) and Morrill (2011) try to convince us), few efforts have been made to try it out with Mandarin Chinese. This study applies TLCG to the syntactic-semantic deduction of some Chinese sentence patterns such as *ba*- and *bei*-sentences and sentences with *ziji*, the reflexive pronoun which is capable of long-distance binding.

*Ba* and *bei* are treated as grammatical markers the same way *of* is treated in expressions like *a picture of John* which include a relational noun. The semantic difference between these two markers is represented as the order of each pair of individuals belonging to the semantic value of the transitive verbs. However, the difference turns out to be quite vacuous because of two meaning postulates which essentially bring out the semantic invariance of a transitive verb in *ba*-sentences, *bei*-sentences and the synonymous sentences without the two makers. This, as we believe, can capture the apparent difference between the three types of sentence on the one hand, and explains their truth-conditional synonymy on the other. For the treatment of these sentences, the applicative categorial grammar integrated with the product operator is powerful enough. Alternative treatments entail a more powerful tool.

The Chinese reflexive pronoun *ziji* has produced a large set of nervous linguists. This

study perhaps proves its upward monotone. It first classifies sentences with *ziji* into three different cases in which it serves as an intensifier, an indefinite pronoun, and a reflexive pronoun respectively. To adequately process the third case, Discontinuous Lambek Calculus is employed.

TLCG can also be applied to the treatment of Chinese idioms, non-constituent coordination, and sentences with casually-placed constituents (易位句). We believe this is just a very limited list of phenomena in Chinese that can be handled by TLCG. Many more phenomena, be it continuous or discontinuous, awaits exploration.

*This workshop is supported by Beijing Association of Logic.*