This paper discusses how Chinese, a so-called tenseless language, determines its temporal reference. For simplex sentences without time adverb or aspectual marker, I show that temporal reference is correlated with aktionsart or grammatical viewpoint. For sentences with an aspectual marker, I discuss the temporal semantics of le and guo in detail, showing how their tense/aspectual meanings contribute to temporal reference. I propose to analyze le as an event realization operator and guo as an anteriority operator. For subordinate clauses, I show that temporal reference of complement clauses of verbs is basically determined by verbal semantics of individual verbs, which may impose some temporal restriction on the temporal location of the embedded event. As for relative clauses and temporal adverbial clauses, many different factors such as lexical verbal semantics, referential properties of determiners, lifetime effect of noun phrases, semantic or pragmatics constraints on temporal connectives, inference rules and world knowledge, etc., all interact to help determine temporal reference. Many data discussed in this paper indicate that there is no evidence of (covert) tenses in Chinese. Therefore, challenging work remains for those who have claimed that Tense Phrase is projected in Chinese phrase structures.

1. Introduction

The study of temporal reference in natural language has been one of the most important issues in the history of linguistic research. This is especially the case for Indo-European languages such as English, because distinctions of times in these languages are directly encoded by verbal inflections. In fact, tense and aspect in these languages have been studied for almost twenty-five hundred years since at least the time of the ancient Greeks, and the results of study are very fruitful as Binnick’s (1991) book Time and the Verb has shown us. In contrast to Indo-European languages, works on temporal reference in Chinese are relatively meager, and the breadth and depth of research are far behind those of Indo-European languages. One reason for this, undoubtedly, is that the Chinese language, unlike Indo-European languages, does not have the same kind of verbal inflections to indicate distinctions of times. Of course, its lack of finite verb forms does not mean that Chinese is unable to express the notion of time. When hearing a Chinese sentence, any native speaker can immediately tell whether the situation described by that sentence holds at a past time, a future time or the speech time. Interesting questions then arise as to how temporal reference of Chinese sentences is determined and to what extent the mechanisms that the Chinese language uses are different from those used in Indo-
European languages. In this paper, I will not be able to probe into the second question, but I will attempt to give an answer to the first question in some detail based on a wide range of data.

This paper is organized as follows. Section 2 outlines the basic assumptions and the theoretical framework that I adopt. Section 3 is devoted to an analysis of how bare sentences in Chinese obtain their temporal reference. Section 4 investigates how different aspectual markers such as the perfective marker le and the experiential marker guo affect temporal reference. Section 5 to Section 8 discusses temporal reference of subordinate clauses such as complement clauses of verbs, relative clauses and adverbial clauses. Section 9 concludes this article.

2. BASIC ASSUMPTIONS AND THEORETICAL FRAMEWORK

In this section, I will give a brief overview of the theoretical assumptions about tense and aspect that I will be adopting in order to provide a better understanding of the discussion that will follow. Traditionally, tenses are understood as the location of an event or state in time axis relative to a reference time, which is usually the speech time (Comrie (1985)). When an event or state takes place or holds before the speech time, the tense is past tense; when the situation is reversed, the tense is future tense; when a process or state overlaps with the speech time, the tense is present tense. The notion of aspect is often characterized as different ways of presenting a situation as a completed whole, viewed as if from outside, or as an ongoing, incomplete action or state, viewed as if from inside (Comrie (1976)). The former is called perfective aspect and the latter imperfective aspect. The perfective vs. imperfective distinction is often realized through grammaticalized affixes or auxiliaries. Klein (1994) finds the traditional definition of aspect imprecise. Therefore, he proposes to replace the definitions of tense and aspect with temporal relations. He has distinguished three times: the time of utterance (TU), the time span at which a situation obtains (T-SIT or time of situation) and the time span about which an assertion is made (TT or topic time). On his analysis, tense does not express a temporal relation between TU and T-SIT as in the classical analysis but one between TT and TU. Aspect, on the other hand, expresses a temporal relation between TT and T-SIT. In particular, perfective aspect requires that the situation time is included within the topic time, whereas imperfective aspect is the other way around or involves an overlap relation. This paper accepts Klein’s (1994) distinction of tense and aspect and will recast his notions of tense and aspect within a framework of model-