CHAPTER III

RESEARCH OBJECT AND METHOD

This chapter discusses research object, method, data collection, data analysis, and data source.

3.1. Research Object

The topic under discussion is symmetric-asymmetric relations. According to Oliver's (1998:9), "*symmetric relation is a Contrast, joint, list and sequence"* In this research, the analysis focus is the sequence relations of the sentence marked by the words *before* and *after*. Furthermore, the word categories are argued to be involved in determining symmetric-asymmetric relations.

Syntactically, every word is categorized in its own parts of speech. Similarly, the words *before* and *after* belong to three parts of speech, according to Quirk et al (1985), that are, preposition, conjunction, and adverb. To show parts of speech of the words *before* and *after* in the sentence, a tree diagram is used. The analysis of word categories may give the connection between semantic and syntactic features.

3.2 Research Method

The research uses a descriptive qualitative method to analyse the data. Moleong (1991: 3) stated that qualitative descriptive method is the research which is analysing the research object to result descriptive data as the text that has been analysed from the phenomenon using grounded theories. Applying Moleong's

idea, this research focuses on analysing phenomena of the words *before and after* and using text or analytic material by examining the structure, and the words that build the text and resulting the description of the analysis. Therefore, this research can be classified as a qualitative descriptive research.

3.2.1. Data Collection

There are several steps to collect the data. First, the data is searched by looking at the sentence that contains the words *before and after*. Second, the data took only from 2015 there are 17053 data for the word *before* and 25155 data for the word *after*. Third, the data are chosen by searching the sentence contain the words *before and after* but have a different part of speech. Fourth, the sentences contain the word *before and after* are examined by looking at the type of sentence that are, simple, compound or complex sentence, and compound-complex sentence. Thus, there are 22 data that will be analysed in this research. Djajasudarma and citraresmana (2016; 46) stated that '*indentifikasi data korpus dapat dipilah berdasarkan sifat dan perilaku tertentu dengan ciri-ciri.'* Based on the quotation the data are chosen based on the characteristic of words in the sentence or can be said based on their categories in each sentence and the types of sentence.

3.2.2. Data analysis

The data were analysed using related theories in a study of semantics and syntax. In syntactical level, the classified data were analysed using the tree

diagram; the sentence tree diagram with Radford's model (2004). The reason for the application of the diagram is to illustrate the sentence structure. First, the sentence structure was analysed to show the part of speech of the words *before* and *after* based on their distribution and to illustrate the relationships between the words in nodes. In semantic level, the data were analysed using symmetrical relations. The semantic analysis is performed by applying the symmetric relation proposed by Oliver (1998). The data illustrated by tree diagram then were analysed to see the relations between the words *before* and *after* by looking sequence of an event that appeared to be the cause of symmetry-asymmetry relations of the word *before or after*; to determine whether the relation of the words *before* and *after* was symmetry or asymmetry. Here is the example of data analysis:

(1) Institutional Review Board approval was obtained before data were collected.

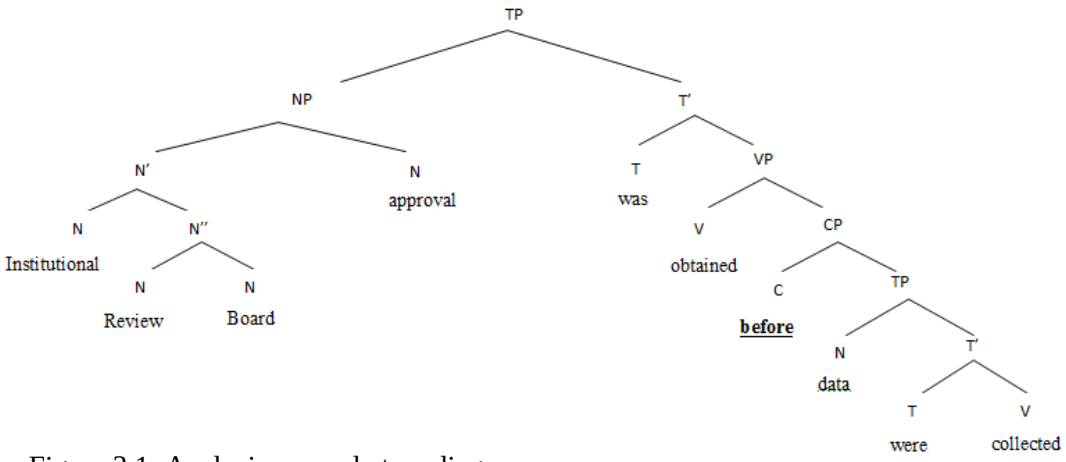


Figure 3.1: Analysis example tree diagram

The word *before* in the data is a conjunction because after the word *before* there is a clause. The data shows 2 events; (1) *Institutional Review Board approval was obtained* and (2) *data were collected*. The word *before* in the data shows the sequence of event. Event (1) happens before the event (2), and it also means that event (2) happens after the event (1). Thus, the data can be changed into "*Data were collected **after** Institutional Review Board approval was obtained*" without changing the meaning of the sentence. Therefore, the word *before* in the data has symmetrical relation with word *after*.

3.3 Data Source

For this research, the data were collected from COCA (Corpus of Contemporary American English) as the main source of research data.There were two principles to choose linguistic corpus as a data: (1) The chosen data that were used as the research data, depend on several factors, that are, the confidence doing the research, researcher interest, and referring to previous hypothesis; and (2) events repetition was significant (Djajasudarma and Citraresmana: 2016). That means the frequency of the data appearance is good to show the language use. A statement about validity of corpus is also stated by Xiao (2009), "*corpus data can indeed contribute to linguistic theory, because corpora can provide attested, contextualized and quantitative language data*." Based on the assumptions, this research uses a valid data.

COCA is chosen because it contains lots of words from various media such magazine, novel, and journal, showing that the words *before and after* have the

semantic relations in every genre of writing. To make more specific, the data is taken only from 2015.