

# CHAPTER I

## INTRODUCTION

### 1.1 BACKGROUND OF THE STUDY

Recently, a lot of scientists have been interested in examining the function of hedges used in the scientific writing (Ksongor, 2013; Afshar & Bagherieh, 2014; Murdue & Cerbuna, 2016). Hedging has attracted the attention of researchers since it plays an important role to convey the writers' statement, especially in scientific writing (Tran and Duong, 2013). Hedges are crucial and essential language features in scientific research. This is also supported by some research stating that hedging is "an important issue for all levels of academic writing" (Yagız & Demir, 2014). Through hedges, writers are able to convey their statement and opinion about what they believe without any absolute contention or even the force impression towards the readers. In other word, hedges protect the writers from revealing decisive claims and help them to soften their conveyance. Hedging appoints interpretations and enables the writers to show their attitudes about the truth they escort, therewithal serving unproven claim cautiously and turning their pronouncement become gentle (Hyland, 1995). It helps writers express their personal honesty and modesty in humble ways and also showing the writers' degree of certainty (Salager-Meyer, 1994). As a consequence, hedges give a huge contribution to readers whether or not they accept the writers' proposed statements.

In writing their research, writers use hedges as the language elements for helping them convey their ideas, opinions, or results of a study. In this case, some may still not know exactly the difference between hedges and boosters. Hyland (2005) elucidated that hedges are devices to state writers' notion presented as opinion-liked rather than legitimate facts while boosters are the writers' expressions of certainty on

their ideas or statements (Salichah, Irawati, & Basthomi, 2015). Furthermore, boosters can be used as tools for showing the high level of the speaker's certainty in stating their ideas/opinions.

Hedging, as mentioned before, has a number of uses implemented in scientific articles. The function and frequency of hedges in scholarly articles are assorted, depending on the genre and section of the writing (Nivales, 2011). There are several types of scientific writing. For instance, there are research articles, case study, review articles, meta-analysis, etc. Generally, scientific writing consists of five different sections. They are introduction, literature review, methodology, discussion, and conclusion. Salager-Meyer (1994) explained that introduction and conclusion sections have the most number of hedges where introduction contains acknowledgment for readers and conclusion comprises new results or facts of the study they reveal.

Research articles are included as scientific studies that writers write based on their research or experiment. Generally, scientific study has two major disciplines, viz. soft science and hard science. Both soft science and hard science are indeed considered as reliable studies which people can trust because their researches are based on examining data. However, there are striking distinctions between them in terms of delivering statements and the form of research objects.

People believe that soft science tends to be malleable and often deals with something abstract, while hard science tends to be more assertive and often deals with physical or concrete entities. More specifically, study in soft science is considered as social study and hard science is regarded as natural study. Cambridge dictionary defines that the word "soft" as an adjective meaning something not hard or firm. It means that soft science has humble character, whether to convey the writers' idea/opinion or to state the result of the study. Though, the results of behavioral and social science studies

are often considered less replicable than in the physical science (Hedges, 1987). Storer (1967) stated that “sociology is not a hard science”. Contextually this argument means that sociology is an example that belongs to soft science. An interesting proclamation submitted by Meehl (1978) in Hedges (1987) to wit the social science research results indicate lower productivity levels. On the one hand, this might be one of the reasons that represent the image of soft science. On the other hand, the word “hard” itself implies something tough, strong, complex and complicated. Cambridge dictionary defines the phrase “hard science” as a branch of science that “facts and theories can be exactly measured, tested and proved”.

A previous study has managed to analyze hedging in introduction, discussion and conclusion sections of writings and used by non-native writers (Turkish) and native writers (Anglo-sphere) (Yagız & Demir, 2014). Another study on hedges used in RAs done by Tran and Duong (2013) focused on examining hedges in result and discussion parts on applied linguistics (soft science) compared to chemical engineering (hard science). They believe that result and discussion parts are important, yet the writer in this study believes that introduction is also an important part since it is ‘welcoming’ and acknowledging the readers to get into the matter of the study.

Therefore, recognizing and realizing that hedging is an important aspect of scientific writing, the writer intends to examine research on hedges used in research articles, particularly in soft science and hard science research articles. Though some writers had established studies in various parts of writing, the writer in this study chose to focus on examining hedges used in introductory parts of research articles.

## **1.2 FIELD OF THE STUDY**

This study includes in applied linguistics; specifically on discourse study about hedging in research articles.

## **1.3 SCOPE OF THE STUDY**

This study focuses on the hedges used in soft science research articles compared to hard science research articles and this study only limit the analysis on introduction sections only. Sixty research articles (thirty of soft science and thirty of hard science) are taken as the object of the study. Those articles were taken from some reputable journal websites which include many articles with different fields of study from various countries.

## **1.4 PROBLEM FORMULATION**

There are two research questions that the writer formulates in this study:

1. How are the hedges used in soft science different from those in hard science in terms of epistemic adjectives, adverbs and modal auxiliary verbs in the introductory section of research articles?
2. What are the functions of specified hedges used in the introduction section of the research articles of soft and hard science?

## **1.5 OBJECTIVES OF THE STUDY**

The following are the objectives of the study to fulfill the exposed problem formulations above on hedges used by the writers of Soft Science and Hard Science research articles taken from several different journal websites:

1. To find out the difference of hedges used by the writers of the two disciplines in the introduction section of research articles in epistemic adjectives, adverbs, and modal auxiliary verbs.
2. To discover the functions of the specified hedges used in the introduction section of the research articles of the two disciplines.

## **1.6 SIGNIFICANCE OF THE STUDY**

The significance of the study for the writer herself is to find out more about discourse, especially on hedges used by writers of soft science and hard science research articles. It is useful for academic writers to be well aware about the importance of hedging in academic writing. Moreover, this study hopefully can be useful as a reference for students in Faculty of Language and Arts, Soegijapranata Catholic University who have interest in hedging to conduct their research. The writer expects that the results of this study can be of some help for further research in discourse study especially in hedging.

## **1.7 DEFINITION OF TERMS**

1. Discourse: a condition where language is used to communicate something and has coherence (Cook, 2001). Discourse is a truly broad area of language field as it does not only encompass spoken language as device to communicate, but also all other apparatus that playing roles as the medium of communication. For instance, printed and non-printed text, sign and symbol, gesture, photographs and pictures, music and certain sounds and many more. It requires language to be used in context, in any kinds of context. The point of discourse is that the study conducted in language use

and one of the most well known definitions of discourse is “language beyond the sentence level.” (Suratno, 2015)

## 2. Hedges

Ken Hyland (1996) stated that hedges are essential tools on academic writing which express tentativeness and probability to serve matter conscientiously. They also refer to barriers, limitations, defenses or actions of protection in expressing ideas (Varttala, 2001).

## 3. Soft and Hard Science

Generally, there are two branches of science in academic writing. One is called soft science and the other one is hard science. Soft science is claimed as a field of study that related to social issue such psychology, sociology, language, human behavior, etc., while hard science is claimed to relate to mathematics, physics, chemistry, biology, etc. Compatible declaration is stated on *dictionary.com*, an online source for English definition, which reveals that soft science is a field of study “on the basis of scientific investigation which may be difficult to establish strictly measurable criteria”, and hard science is “any of the natural or physical sciences”.