

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of Study

In recent years, Neural Machine Translation (NMT) and AI-based translation tools have changed the way people translate texts. These systems use deep learning technology to produce translations quickly and fluently (Manapbayeva et al., 2024). Because of this, AI translation agents are now widely used in many areas, such as education, communication, and professional work. In many cases, they can produce sentences that are grammatically correct and easy to read which makes them very useful for fast translation needs.

However, despite their high usage, AI translation agents still provide relatively basic translations and continue to make errors when compared with human translators (Webster et al., 2020). They usually focus on words and sentence structure. However, they do not always understand the deeper meaning that comes from the situation, relationship between speakers, or cultural background.

Several studies show that AI has problems with discourse-level understanding, which means understanding meaning across sentences and not just inside one sentence (Cespedosa & Mitkov, 2023; Qamar et al., 2024; Abdelhalim et al., 2025). This problem can lead to translations that sound natural, but do not fully match the real meaning in the original text.

Another problem is that AI agents often struggle with expressions that are influenced by culture and social relationships. These expressions include politeness, respect, power differences, and social distance between people. AI may translate

these expressions in a very simple way or even ignore their social meaning. As a result, important social meanings in the text can be lost or changed. Even when some context is given, AI still sometimes fails to fully understand these deeper social meanings.

This shows that context is very important in translation, especially when dealing with meaning that is connected to human relationships. Without understanding context well, AI agents may miss important information about how people speak to each other and what their social relationship is.

Among the various types of context-dependent meaning, social deixis is particularly challenging because its interpretation relies heavily on social and cultural relationships between speakers. Social deixis refers to language forms that show social relationships between speakers, such as respect, power, and distance (Levinson, 1983). These forms can appear in pronouns, names, titles, and ways of addressing other people. Social deixis can also show information about age, gender, job, family relationships, and social status (Abdulameer, 2019). Therefore, when translating pronouns and other socially marked expressions, translators need to consider the socio-cultural factors that influence their use, since these forms often reflect relationships of power, respect, familiarity, and social distance (Sholihah & Prihantoro, 2024).

In literary texts, social deixis is very important because it helps readers understand the relationships between characters. Writers often do not explain these relationships directly. Instead, they show them through the way characters speak to each other. For example, the choice of words can show whether a character is

respectful, powerful, or close to another character. Because of this, social deixis plays an important role in showing meaning that is not directly stated in the text.

However, translating social deixis is not easy. Different languages do not always have the same way to show social relationships. Because of this, translators often need to change, adjust, or replace certain expressions. These changes can sometimes affect the original meaning. If social deixis is not translated correctly, the relationship between characters can look different. For example, a respectful relationship may look more casual, or a power difference may become unclear.

So far, translating social deixis requires a strong understanding of context. This is because its meaning is not only about words, but also about culture and social relationships. Without understanding context, it is difficult to translate social deixis correctly. This becomes even more challenging when using AI translation tools, because AI does not always fully understand social and cultural meaning.

Even though AI translation technology is developing quickly, research about how AI handles socially and culturally meaningful language is still limited. Some studies have shown that AI has problems with meaning that depends on discourse and context (Voita et al., 2019; Matrood & Sharifi, 2025). Taken together, these studies indicate that current AI agents can handle sentence-level tasks reasonably well, but they still struggle to understand meanings that depend on social, cultural, and contextual factors. Although previous studies have explored AI's limitations in translating discourse and context-dependent meanings, few studies have examined how AI translates social deixis in literary texts. In addition,

there is still limited research comparing the translation techniques used by AI agents and human translators when translating social deixis.

There are still few studies that connect social deixis with translation techniques in a systematic way. This means we still do not clearly understand how translation choices are made when translating socially marked expressions, especially when comparing human translators and AI agents.

Because of this gap, this study aims to analyze how human translators and AI agents translate social deixis in Pramoedya Ananta Toer's *Bumi Manusia*. This study also aims to see what translation techniques are used by both human and AI translators when dealing with social deixis. In addition, the study will look at patterns and differences in their translation choices. The findings of this study are expected to contribute to the understanding of how social meaning is transferred across languages and to provide insights into the differences between human and AI translation processes.

## 1.2 Research Questions

The research questions of this study are:

1. How accurate are AI agents in identifying and categorizing social deixis based on Levinson's (1983) classification in Pramoedya Ananta Toer's *Bumi Manusia*?
2. How accurate are AI agents in translating social deixis based on their selection of Molina & Albir's (2002) Translation Techniques in Pramoedya Ananta Toer's *Bumi Manusia*?

### 1.3 Objectives of the Study

This study aims to:

1. Examine the accuracy of AI agents in identifying and categorizing social deixis in Pramoedya Ananta Toer's *Bumi Manusia*.
2. Examine the accuracy of AI agents in translating social deixis based on their selection of Molina & Albir's (2002) Translation Techniques in Pramoedya Ananta Toer's *Bumi Manusia*.

### 1.4 Limitation of the Study

This study is limited to the analysis of social deixis in Pramoedya Ananta Toer's *Bumi Manusia* (1980) and its Indonesian–English translation, *This Earth of Mankind* (1996) translated by Max Lane. Meanwhile, other types of deixis including person deixis, spatial deixis, and temporal deixis are beyond the scope of this research.

The data analyzed in this study consist of one published human translation (TL) and results generated by two AI agents, namely ChatGPT-5 and Gemini 2.5. This study does not examine the background or translation process of the human translator and it does not investigate the internal mechanisms, training data, or algorithms underlying the AI agents. Accordingly, the analysis is confined to the translation outputs.

Furthermore, this study exclusively adopts the social deixis scheme proposed by Levinson (1983) and translation techniques scheme proposed by Molina & Albir (2002) to analyze the translation of social deixis. Other theoretical frameworks and analytical models in translation studies are not employed.

This research aims to identify how human and AI perform in categorizing social deixis and translating social deixis. It does not seek to evaluate translation quality, accuracy, acceptability, or readability. Consequently, the findings are context-specific and may not be generalized to other literary texts, translators, AI agents, or language pairs.

### **1.5 Significance of the Study**

Theoretically, this study contributes to research on social deixis in literary translation. By using Molina & Albir's (2002) translation techniques to analyze both human and AI translation performances, this study shows how the scheme can be used to compare human and AI translation, especially in identifying, categorizing, and translating cultural elements in literary texts.

Practically, the findings provide insight into the evaluation of human annotator and AI agents performance, particularly in how AI agents identify and categorize social deixis. It also provides information on the differences of how human translator and AI agents perform in selecting translation techniques to translate social deixis. This evaluation focuses specifically on the performance of ChatGPT-5 and Gemini 2.5 in carrying out these tasks. These findings may help translation students and practitioners understand how social deixis is identified and translated differently by human and AI translators. They may also support better decisions when translating socially and culturally sensitive expressions. In addition, this study can be a reference for future research on AI-assisted literary translation, especially studies that focus on social deixis.