IRONY PROCESSING IN L2 ENGLISH SPEAKERS

BY

MISS PIMRAT FONGCHAMNAN

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN ENGLISH LANGUAGE TEACHING
LANGUAGE INSTITUTE
THAMMASAT UNIVERSITY
ACADEMIC YEAR 2017
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THESIS

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ENTITLED

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was approved as partial fulfillment of the requirements for
the degree of Master of Arts in English Language Teaching

on May 8, 2018

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This study reports the findings of an eye-tracking study which investigated the on-line irony processing in Thai speakers of English. Participants of the study were 36 Thai L2 English speakers who were doing a Master degree in English Language Teaching at Thammasat University. All of them possessed moderately high English proficiency; results for their Thammasat University General English Test scores were more than 610 at the time the study was held. Reading time courses of the participants were recorded while they read quantified antecedent sentences, whether intended ironically or literally, in order to contrast the predictions of three contemporary processing theories: the standard pragmatic view, the direct access model, and the graded salience hypothesis. The length of time in processing of a subsequent statement containing a pronominal reference was also recorded in order to examine the retention of interpretations, no matter whether it was the case of literal, ironic, or both interpretations that were retained during the on-line irony processing. In the final part of the study, five participants were randomly interviewed in order to explore their perspectives of what they understand as an irony, as the participants’ L1 schema of what is counted as irony might affect their way of processing L2 irony. The participants were also asked if they think Thai irony and English irony are the same or different in order to elaborate their perceptions of English irony.

The results indicated equivalent effort of processing both literal and ironic statements, as the differences of total reading times in the focus phrases between ironic and non-ironic conditions did not approach significance. That means the participants’
way of processing ironic utterances were more corresponding with the direct access model than with the standard pragmatic view or the graded salience hypothesis. The results also indicated significantly longer reading times when the participants processed reference set sentences that followed an antecedent statement contained a positive quantifier in an ironic circumstance, and vice versa if the antecedent was negative. That means only ironic interpretation remains active during irony processing which coincides with the direct access model as well. These findings suggest that the pattern of processing written irony of Thai speakers of English and English native speakers is not alike. L2 speakers prioritize more of the contextual information in order to interpret the meaning of a potential utterance to be ironic, because they process ironic utterances in accordance with the direct access model that gives precedence to contextual information. Therefore, methods of teaching inferring meaning from context should be practiced with instruction on L2 irony, in order to maximize the students’ understanding of irony which is vital for achieving successful communication.

**Keywords**: Irony, Figurative language, On-line processing, Eye-tracking, Anaphoric reference, Quantifiers, Standard pragmatic view, Direct access model, Graded salience hypothesis, Second language
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Pimrat Fongchamnan
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<td>Comp set</td>
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CHAPTER 1
INTRODUCTION

1.1 BACKGROUND OF THE STUDY

In everyday communication, people do not always simply express what they mean explicitly through what they say. Speakers often intend inference far beyond the literal meaning of the statement they utter to achieve some communicative goals (Roberts & Kreuz, 1994; Nunberg, 2006; Slabakova, 2009). Consider the following example:

(1) Tanya (after someone spoiled the movie she is going to watch):

   Thanks a lot!

In this case, Tanya did not literally mean to show appreciation to her hearer, but her utterance contained an intended meaning that implies the opposite of which she said; she did not feel thankful at all. The words or expressions as (1), that have an interpretation apart from the literal meaning, are known as figurative language.

Figurative language is very common in poetry or any other literature works as it contains the potential to transfer the author’s emotional sensitivity, impression, or thought through various ways of the use of various figures of speech (Sharndama & Suleiman, 2013). Figurative language, also, occurs in even the most serious academic texts, and even more is used in everyday communications (Littlemore & Low, 2006; Gibbs, 2000; Burgers, Van Mulken, & Schellens, 2012). However, the various types of figurative language contain different purposes of the usage. For instance, the use of figurative language—irony—in statement (1) above, not only allows the speaker to intend the opposite of which she explicitly expressed, but also allows her to evoke a sense of criticism towards the addressee.

Irony, as in the statement (1) above, is one form of figurative language that has a very broad base itself. It could be divided into two types, according to Colston and Gibbs (2007), as situational and verbal irony. Situational irony is the phenomenon where some situation in the world is contradictory to what naturally was or was expected. When the contrary happens, it results in a mocking sense of the fitness of those things. For example, a psychiatrist, who is supposed to help people with mental
illness, is diagnosed with mental illness herself, or the events where a doctor, who is expected to save lives, is a serial killer. These ironic events deride the normal order of things, and capture the unreliability of the world’s standard thoughts (Lucariello, 2007).

For verbal irony, traditionally, it is described as the case of expressing one thing and meaning the opposite. It is a trope involving the substitution of a figurative meaning for its literal counterpart when the speaker flouts the maxim of quality that is expected for the truthfulness of the statement (Grice, 1975, 1978). For example, a man says “what a peaceful Sunday morning!” when there is a building construction that works really loudly near his place, thus the man is being ironic. It is because the utterance is clearly not expressed to mean literally that he thinks it is peaceful at the time, but he actually asserts what seems to be a contrast of what he said.

However, according to Sperber and Wilson (1981), the phenomenon of verbal irony is not always straightforward and simply expressing the opposite meaning of its literal counterpart. It has to consist of some specific attitudes towards the saying to give a purpose of the use of irony. Consider the following statement uttered by one watcher at a school running competition when an undersized boy trips over his own feet while coming in last (Sperber & Wilson, 1981: 315):

(2) It’s a bird—it’s a plane—it’s Superman!

By interpreting this ironic statement to only be the opposite of what is said according to the traditional way as It’s not a bird, it’s not a plane, it’s not Superman, even if it is literally true, it fails to explain why the speaker chose to utter the opposite. But if the mocking attitude of the speaker is considered when analyzing this statement, the goal of making this ironic utterance as a joke could be explained.

Anyhow, situational irony and verbal irony are similar in the way that they both compare a statement’s incompatibles; of what is expected and what has actually occurred (in situational irony cases), and of what is said and what is intended (in verbal irony cases). However, they are different in the focus of the producer of the ironic phenomenon. Situational irony is created by a contradicted affair spotted by an observer, while verbal irony is intentionally stated by an ironist. Muecke (1969, as cited in Lucariello, 2007: 468) noted that the distinction between situational and verbal irony could be illustrated when we say “It is ironic that …” and “He or she is being ironical,”
as the former is used when situational-irony phenomenon is described and the latter could be used with only verbal irony.

Both types of irony happen commonly in contemporary cultures, especially for the case of verbal irony. Verbal irony has been used pervasively in everyday communication because of its ability to avoid conflict in social relation through the use of antisocial language in an insincere appearance of politeness, be it for the goal of criticism, humor, entailing of an unexpected situation, protection of the speaker himself, or solidifying between speaker and addressee (Leech, 1983; Wilson, 2013; Colston & O’Brien, 2000; Kowatch, Whalen, & Pexman, 2013; Burgers et al., 2012). In ordinary conversational turns, about 8% of the turns are verbal irony (Gibbs, 2000), and verbal irony is used in contemporary American television shows on average four times in every half hour (Schwoebel, Dews, Winner, & Srinivas, 2000). That means, with a simple calculation, a person who only regularly involves in ordinary conversations with his/her friends and watches popular American television shows an hour per day would encounter ironic utterances at least 3,000 times a year.

Because verbal irony is a common language people use in daily life and yet is complicated so that sometimes people easily misinterpret, it has received great attention from numerous empirical researchers who have explored the ways people comprehend the phenomenon for decades. As a result, different theories of irony have emerged, such as the traditional standard pragmatic view (Grice, 1975), the direct access model (Gibbs, 1986, 2000), and the graded salience hypothesis (Giora, 1997). These theories differ in the notion of the stage taken to process irony. According to the standard pragmatic view, the literal meaning of the ironic utterance must be comprehended first. Then, by recognizing that the interpretation is not compatible with the context, the ironic interpretation of what is opposite from the literal meaning is arisen and the literal interpretation is suppressed. However, the direct access view, contrary to the first one, argues that the literal meaning is not automatically analyzed before the figurative one is derived. If the context contains any ironic cue, the ironic interpretation would be computed directly, with no need for the literal interpretation to be accessed, because contextual information is interacted first. On the other hand, the graded salience hypothesis comes to an agreement with the standard pragmatic view in which it predicts that processing irony requires extra inferential processing of literal interpretation.
However, when the ironic interpretation is arisen, because the incompatible context is identified, the former literal interpretation is maintained, so that the dissimilarity between them may be compared (Filik & Moxey, 2010; Kaakinen, Olkoniemi, Kinnari, & Hyönä, 2014; Filik, Leuthold, Wallington, & Page, 2014).

These different views of how people process ironic utterances could lead to different beliefs of what counts as a verbal irony. Since the traditional account of Grice substitutes the literal meaning of an ironic statement with an ironic interpretation, it means that a verbal irony is simply the opposite of its literal meaning, while the direct access view and the graded salience hypothesis consider more cognitive process in computation of contextual (for the former account) and lexical elements (for the latter) in an ironic utterance. In this case, the factor of being a verbal irony should be more than just a contradicted characteristic of the statement. Some belief or attitude held by the speaker must be involved in computation of ironic utterances.

These cognitive approaches of on-line processing of irony are not only able to explain how the natives (L1) comprehend ironic statements, but they could also be applied to investigate second language (L2) learners’ ways of coping with such statements. In this study, these three theories—the standard pragmatic view, the direct access model, and the graded salience hypothesis—are selected to investigate L2 learners’ on-line processing of verbal irony, as it would be unreasonable to assume that they would process any ironic utterances in the way the natives do. It is because there are certain factors that have been proved to affect how L2 learners understand irony, and other figurative languages. They might interpret some utterances differently from the natives because of their culture specificity (Sigar & Taha, 2012; Togame, 2016). For example, in the case of Korean learners of English in the study of Kim (2014), they considered the statement *Hi, but I’m not here, you haven’t met me* in the situation that the speaker meets her interlocutors for the first time as irony. This is because their L1 schema of the definition of irony (*ban-eeo* in Korean, which literally means opposite language). Thus, in the situation where the speaker is physically there, the statement that sensing opposition of the reality like *Hi, but I’m not here, you haven’t met me* is treated by the Korean learners as irony.
1.2 STATEMENT OF THE PROBLEM

In cross-linguistic and cross-cultural contexts, L2 learners tend to encounter verbal irony as much as the natives do because verbal irony is very common in everyday communication, as mentioned earlier. Consequently, the different way of interpreting ironic utterances between the natives and L2 learners might cause communication failure. It is because the figurative language a user states is to achieve particular communicative goals. By misinterpreting what the speaker actually intends, the goal is unaccomplished which causes failed communication.

In order to lessen the gap of differences between the natives and the L2 learners, explicit instructions of the issue must be offered as confirmed by Bouton (2004) that it is an effective method for developing the learners’ ironic interpretation accuracy. In that study of Bouton, a relatively short instructional intervention (six weeks) that taught how to recognize ironic utterances was presented to L2 learners. The results show that this explicit intervention affected the participants greatly. After the intervention, the participants were able to interpret irony correctly at a level of accuracy of the learners who had spent a much longer period of time in the target language and culture. This could suggest that explicit instructions of irony should become a part of ESL and EFL curriculums as such instructions could improve L2 learners’ accuracy in interpreting implicatures.

However, irony is usually neglected in common pedagogy (Ivlampie, 2014). It might be because little is known about irony in the second language acquisition field. Thus, it tends to be hard to design any course or lesson related to the topic. This is a relatively big problem for the L2 learners who have less opportunity to be exposed to the target language and culture, as, for example, the learners who live in a monolingual-context country such as Thailand.

In Thailand, where Thai is the official language and English is taught as a foreign language in schools and universities, Thai learners of English seem to seldom come across English verbal irony. Nevertheless, with the widespread availability of internet usage nowadays, where English is generally the medium language in international communication, the learners might frequently encounter English verbal irony as it is pervasive in daily communication. Besides, the establishment of the ASEAN Economic Community (AEC) in 2015 increased the opportunities for Thai
learners of English in using English in daily life. As a result, Thai learners of English have to encounter L2 verbal irony in one way or another.

Unfortunately, it has been proved that Thai learners of English perform rather poorly in interpreting English figurative language. According to Manowong (2011), it is because of the failure of English language teaching in the EFL setting of Thailand, which pays less attention to pragmatic concerns. The teaching seems to encourage the students to focus too much on translation strategies that make them concentrate only on the surface lexical meaning of the utterances, not the intended meaning. Consequently, Thai students have often failed in communicative skills as they have less pragmatic awareness, and do not understand what the speakers actually mean when they use figurative language.

As the explicit instruction of English irony is needed for Thai students to improve their communicative competence, the present study aims to underline what should be emphasized in the instruction of irony by testing the predictions of the above theories of irony processing (the standard pragmatic view, the direct access model, and the graded salience hypothesis). Different theories predict different assumptions of on-line irony processing, which leads to different explanations of what is counted as irony. The different explanations also indicate different main focus of what should be taught in irony instruction. The results obtained would demonstrate how Thai speakers of English compute L2 ironic utterances which would allow development of a better understanding of the speakers’ way of comprehending English verbal irony.

1.3 OBJECTIVES OF THE STUDY

The objectives of the study are:

1.3.1 To investigate Thai L2 English speakers’ on-line processing of English irony by using three contemporary processing theories—the standard pragmatic view, the direct access model, and the graded salience hypothesis—as guidelines for analyzing and conceptualizing such processing.

1.3.2 To examine the retention of interpretations through the length of time in processing of subsequent statements, in order to contrast the predictions of the three outlined contemporary processing theories: the standard pragmatic view, the direct access model, and the graded salience hypothesis.
1.4 RESEARCH QUESTIONS

The research questions are:

1.4.1 Based on the standard pragmatic view, the direct access model, and the graded salience hypothesis, how do Thai L2 English speakers process English ironic utterances during on-line processing of English irony?

1.4.2 To what extent is Thai L2 English speakers’ retention of interpretation in processing of subsequent statement identified?

1.5 SCOPE OF THE STUDY

Since irony has a very broad diversity of patterns, the current researcher chose to limit the scope to study only on-line processing of verbal irony, that is, the phenomenon where a speaker says something that seems to be the opposite of what they mean, and leaving out situational irony which is the phenomenon where some situation in the world is contradictory (Colston & Gibbs, 2007). The reason behind the choice is that verbal irony seems to present a more common kind of communication that people could find in their daily interaction with others, while the complexity of situational irony seems to be beyond what they would normally find.

Moreover, only Thai L2 English speakers with high competence in English were recruited as the participants of this study because language proficiency appeared to influence detecting implicatures in figurative language (including irony). According to previous studies, learners with high English proficiency could gain more pragmatic awareness than those with low proficiency who are still struggling to understand the language in basic senses (Roever, Wang, & Brophy, 2014; Shively, Menke, & Manzón-Omundson, 2008). Thus, it could be assumed that L2 speakers with high English proficiency would interpret ironic utterances more accurately than those with low proficiency. Therefore, to highlight the means of irony processing in L2 speakers, the participants must possess enough language ability to interpret any English ironic utterance correctly. If the participants could not correctly distinguish literal and ironic statements, the processing by the participants might be uncertain. They could process a statement that they consider to be literal, even if it actually is ironic. That could make the data obtained less reliable. Hence, the factor of proficiency was excluded by
employing only L2 speakers with high competence in English, who were assumed to be more accurate in detecting irony, to be participants.

1.6 LIMITATIONS OF THE STUDY

There are some limitations of this study that should be noted as followings:

1.6.1 The data collection of this study has been conducted with only Thai L2 English speakers with high competence in English who were doing a Master degree in English Language Teaching at Thammasat University.

1.6.2 This study examines the irony processing of the Thai L2 English speakers using only the written form of experimental items. There is no auditory and visual contexts in the experiment due to the fact that the needed data is reading time courses.

1.7 DEFINITION OF TERMS

The terms mentioned in this study are defined as follows:

1.7.1 *Irony* refers to a language that reflects the idea of a speaker providing some contrast between what is said and reality. In this study, irony is seen as a general category of figurative language under which various subtypes of irony exist: for instance, sarcasm, jocularity, rhetorical question, hyperbole, and understatement. Moreover, the term *irony* is used interchangeably with the term *verbal irony* throughout this study.

1.7.2 *Literal Meaning* refers to the most basic, usual, directly, or obvious meaning of the words or phrases that are used; for example, the utterance *You look fresh!* (to a person who just showered) carries the literal meaning.

1.7.3 *Non-literal Meaning* refers to the figurative meaning of the words or phrases that does not represent their normal literal meaning; for example, the utterance *You look fresh!* (to a person who just arrived the airport from a very long flight) carries the non-literal meaning, which means that the person looks tired. In this study, both *non-literal* and *figurative meanings* refer to ironic meaning.

1.7.4 *Context* refers to the part(s) of a written or spoken statement surrounding a particular expression in a discourse that influence(s) the way the expression is understood.
1.7.5 First Language (L1) refers to the native language or mother tongue of a person in which s/he has been exposed to from birth. In this study, first language refers to the Thai language.

1.7.6 Second Language (L2) refers to a language that is not the native language of a person, but that is learned in addition to the person’s first language. Second language or foreign language is usually learned in a country where that language is not generally used as a whole. In this study, second language refers to the English language.

1.8 SIGNIFICANCE OF THE STUDY

This study on L2 irony processing by Thai L2 English speakers has its significance as follows:

1.8.1 The findings of this study will contribute to a better understanding in English irony comprehension in Thai L2 English speakers. The better understanding of L2 irony may lead to the development of second language pedagogy in Thailand and other non-native countries, in which it would give a guide on what should be emphasized in the school curriculum to maximize the students’ communicative competence.

1.8.2 The study will help guide the way for further research on other related areas in L2 irony processing that have not been explored, for example, the study of comparison between processing of positive and negative English irony in L2 learners.

1.8.3 The study will provide the ground work for further study on language processing of figurative language or other areas of language, for example, the study of metaphor processing or the study of any reading processing.

1.9 ORGANIZATION OF THE STUDY

This present study is divided into five chapters. First, Chapter 1 presents introduction of background, statements of problem, objectives, research questions, scopes, limitations, definition of terms, and significance of this research. Second, Chapter 2 reviews literature in which the theories of irony processing and related previous studies are discussed. Third, Chapter 3 provides the methodology used in this study: subjects, instruments, procedures, and data analysis. Next, Chapter 4 reports the
results from the experiment and discussion of the results. Last, Chapter 5 offers conclusions of the study and recommendations for further research.
CHAPTER 2
REVIEW OF LITERATURE

This chapter reviews related literature in order to construct the theoretical framework for the present study. There are five main sections that are discussed in this chapter. Firstly, the chapter begins with Section 2.1 that provides information about irony comprehension in order to give explanations of the ways people understand ironic statements in their first language. This section also deliberates the conceptual and processing theories of irony—the standard pragmatic view, the echoic mention theory, the indirect negation view, the direct access model, and the graded salience hypothesis—as these principles are the critical theories for analysis of this study. Secondly, in Section 2.2, the relationship of irony and pronominal reference is discussed as it is an indicator of which interpretations remain active in the on-line processing. Thirdly, Section 2.3 highlights how L2 learners understand verbal irony. Next, in Section 2.4, irony in Thai language is explained in order to provide the knowledge of the characteristics of Thai irony. Last, previous empirical studies of irony processing are discussed in Section 2.5.

2.1 IRONY COMPREHENSION

This section discusses how people process ironic statements in their first language. Three conceptual theories of irony are explored alongside different processing theories of irony that would explain both of what is counted as irony and how people compute such language. The conceptual theories discussed in this section are the standard pragmatic view, the echoic mention theory, and the indirect negation view. The processing theories are the standard pragmatic view, the direct access model, and the graded salience hypothesis.

2.1.1 The standard pragmatic view

Irony has been one of the major topics of attention by scholars who have their interests in figurative language. It could be traced back to thousands of years ago in philosophical works about the topic by the famous philosopher Socrates, or might even
be earlier than that. In contemporary times, the study of irony could be found in various fields such as linguistics, sociology, literature, philosophy, cognitive science, and more. Many of those studies have been conducted in order to understand how irony is used. And in recent decades, researchers start to shift their attention to study what irony really is and how people understand the phenomenon (Colston & Gibbs, 2007).

In an attempt to explain the concept of irony, several theorists have proposed different perspectives and theoretical frameworks of the phenomenon. There are also different thoughts of how people manage to comprehend an ironic utterance in order to frame the nature of irony. Such contemplations are discussed by numerous researchers, but they have not yet reached a consensus if irony is explained any theory the most coherently.

Serious thinking about verbal irony in modern times starts with the classical semantic approach that describes irony as a way of literally saying one thing and meaning the opposite—known as semantic reversal—which is assigned by grammar (Togame, 2016). An example of semantic reversal is the grammatical contrast. Consider the following example (Seto, 1998:242):

(3)  A: Sorry; I haven’t enough money.
B: You always/perpetually haven’t enough money.

Adjuncts, like always and perpetually in (3), normally cannot precede negation. Nevertheless, it is acceptable for B to use such adjuncts in (3) to produce verbal irony. This is a reverse of semantic elements that is triggering an ironic interpretation.

However, Grice (1975) argues against the approach that grammatical and semantic rules could not be used with this kind of intended meanings. Instead, he proposed the cooperative principle, as known as the standard pragmatic view, in order to provide genuine explanation that non-literal meaning of a figurative speech is derived pragmatically. Grice suggested that communication comprises of “what is said,” or the literal message of an utterance that the speaker explicitly expresses, and “what is implicated,” which is arisen by a blatant flout of any maxims of conversation. According to Grice, irony should be analyzed as a trope—the utterance with implicature related to its literal counterpart in some way—in which its figurative meaning is described to be the opposite of and substitutes the literal meaning in the virtue of provided context. Irony implies conversational implicatures in the case that the first
maxim of quality (i.e. do not say what you believe to be false) is flouted. Consider the following example:

(4) Tanya (after she went to a horrible date with a guy she met on a dating website): He’s such a prince charming.

It is obvious that Tanya has said something she does not believe to be true and she knows that this untrue utterance is obvious to her interlocutor. The flouting of the maxim causes the conversational implicature which proposes the contradiction of the one Tanya purports to be putting forward.

Ironic sense of an utterance is often signaled by exaggeration and understatement (Leech, 1983). Consider the following examples:

(5) Cooper (after someone gave him an advice that he did not need): It’s all I needed.

(6) Aston (to a mother after her child copied all of his homework from his friend): Some of your boy’s works were not his own.

In (5), when Cooper overstates his utterance and flouts the maxim of quality because the statement is contradicted to the truth, the ironic interpretation is registered. If the statement is simply uttered as an opposite of the truth as it’s what I needed, the ironic impact of the utterance would be lesser, or even not have been registered at all.

Irony, sometimes, could also be signaled by the violation of the maxim of quantity (i.e. do not say more nor less than is required), and this case of claim often corresponds with the force of understatement as in (6). The statement (6) could also lead to ironic interpretation, even it is partly true (so that this statement does not directly violate the maxim of quality). According to Grice, one who is being ironic misleads his/her interlocutor in order to be polite, and one way to do that is by combining the violation of maxim of quantity and the use of negative uninformativeness. Negative uninformativeness is the way one uses a negative sentence to provide information for a given purpose that a positive sentence could not offer. In the case of statement (6), the negative uninformative proposition implies the expectation of Aston that expects all the boy’s works to be done by the boy himself, which was not the case, and he uttered less than what the truth is in order to be polite. Therefore, Aston politely implicates an ironic interpretation, which is opposite of the reality, to mean that all of the boy’s work was not his own.
In the notion of on-line processing, this view sees the comprehension of irony in three stages. Consider the following on-line processing diagram:

![Diagram of on-line irony processing]

Figure 2.1: *On-line Irony Processing of the Standard Pragmatic View*

A reader or listener must compute the literal meaning of the statement first, whether his/her interpretation is compatible with the context or not. Then, by recognizing that the literal interpretation is inappropriate because it is mismatched with the context, the context-incompatible literal meaning is suppressed because it is not anymore relevant to the speaker’s intended interpretation. After the suppressing, the non-literal interpretation, which is opposite from the literal counterpart, arises to make the statement appropriate to the truth (Filik & Moxey, 2010; Kaakinen et al., 2014; Kowatch et al., 2012). Given the statement (4) *he’s such a prince charming*, as in the example, the hearer of Tanya firstly would analyze the literal meaning that said the man is a very nice guy. But when compared with the context in which the situation was a horrible date, the first interpretation is inappropriate. Thus an ironic interpretation, which infers the opposite, that the man is not a nice guy, is applied. Therefore, this on-line process indicates that ironic statements should always be more difficult to compute than literal statements, because extra inferential processing of replacing the literal interpretation with the opposite is demanded in order to comprehend ironic utterances.

In addition to his own work, Grice (1978) suggested that the speaker’s feeling or attitude is also an essential element for considering a statement to be ironic. A statement that implicates the opposite meaning from the reality is not necessarily being
understood as an irony when it occurs without some particular feeling, attitude, or evaluation. Consider the following example:

(7) A and B are walking down the street, and they both see a car with a shattered window. B says, Look, that car has all its windows intact. A is baffled. B says, You didn’t catch on; I was in an ironical way drawing your attention to the broken window. (Grice, 1978:124)

Although B violates the maxim of quality as he said something that he believed to be false, this example contains no irony. An irony, for Grice, must always reflect some insult or judgmental attitude, or some sort of feeling, like scorn or derision. Thus to just say something opposite to the reality like B does hardly counts the utterance as irony. That is why A is confused as to what B said.

Concisely, this standard pragmatic view treats an ironic interpretation to be the substitution of its literal counterpart, and the ironic interpretation always conveys the opposite of what one said. A blatant violation of the maxims, as the literal statement is incompatible with the context, triggers an interpretation process that leads to the adoption of an implicature. Thus, the interpretation of an ironic utterance is pragmatically inferred (Togame, 2016). However, this view’s attempt of reanalyzing the notion of irony from what the classical semantic approach did is just transferring the notion from the semantic to the pragmatic domain, in which ironic interpretation still remains the opposite of what is being said. It provides no plausible explanation of why people choose to use this kind of language instead of the more transparent utterance of its literal counterpart (Sperber & Wilson, 1981).

2.1.2 The echoic mention theory and the direct access model

According to Sperber and Wilson (1981), irony is not always noticed by inflection from its literal counterpart. Consider the following examples that illustrate the traditional approach’s limitation in explaining some ironic utterances by supposing the hearer has been asked whether (8) or (9) could make sense ironically when said by someone caught in a downpour (Sperber & Wilson, 1981: 300):

(8) What lovely weather.
(9) Did you remember to water the flowers?
If the hearer comprehends irony as the traditional account explains, only the statement (8) is counted as irony because the statement is clearly meant as the opposite of what is uttered. On the other hand, the question in (9) does not express the opposite. Actually, it is hard to see what would be the opposite of (9), and the standard pragmatic view would consider this question as ridicule because it is pointless to ask such question. However, this question could also be recognized as irony because of this obvious irrelevance to the context that echoes a mocking attitude. The speaker could not care less about the answer, but he states this particular question to emphasize the pointlessness of asking the question in the circumstance. Thus, instead of treating an ironic interpretation as a substitution of its literal meaning, Sperber and Wilson see irony as the way the speaker draws his/her interlocutor’s attention to the content that the expression contains, not the expression itself. This approach of comprehending irony is what they called the echoic mention theory.

The echoic mention theory gives precedence to the distinction between use and mention in order to understand an ironic utterance, rather than the distinction between literal and non-literal interpretation as the standard pragmatic view does. The distinction, for example, is where the sentence “don’t smoke” can be used to ask someone not to smoke a cigarette in a certain area or situation, the sentence is mentioned in “there is no sign says ‘don’t smoke’ anywhere.” Accordingly, when an expression is mentioned, it refers to the content that the expression contains, not what the expression itself refers to.

In this echoic mention account of irony, Sperber and Wilson claim that there is only one meaning represented in ironic statements which is the literal one. This literal meaning in an ironic statement is mentioned and implicitly echoes a thought of a belief, intention, or norm-based expectation in order to conveying an attitude, usually derogatory, towards someone or people in general (Sperber, 1984). Consider the following example:

(10) Cooper: Aston is a very handsome guy.

Tanya: Aston is a very handsome guy indeed; even the ugliest girl in the school doesn’t text him back.

In example (10), Tanya implicitly mentions a meaning of the propositional content of what Cooper has been saying. The mention corresponds to the thought which echoes a
critical attitude that Tanya tries to communicate with Cooper to let him know that his remark is absurd. Thus, it is not the case that she tries to convey the opposite meaning of what she said.

Furthermore, echoing a thought in ironic utterances can be seen in various range, which might be immediate, delayed, or neutral range of echoing of attributed thought (Jorgensen, Miller, & Sperber, 1984). The example (10) above is a case of immediate echoic thought where Tanya instantly echoes criticism towards Cooper’s remark. The other two cases show in the following examples:

(11) Aston (after he was lost in the woods for three hours): Me, the best compass reader in the world!

(12) Betty (after her dog destroyed her lovely garden): Adopt a pet they said. It will be fun they said.

The statement (11) illustrates the delayed echoing of a thought. The earlier expectation of Aston that he could read the compass good enough to get himself out of the woods is mentioned three hours later. This mention echoes his mocking attitude towards his own stupidity of believing that he would get out of the woods by himself. In the case of the statement (12), Betty mentions the norm-based expectation that having a pet should be fun. It is a thought of people in general. Thus there is no specific range of this particular echoing. However, Betty’s statement is ironic as it echoes a skeptical attitude towards the expectation.

The assumption of Sperber and Wilson is approved by the Jorgensen et al. (1984) study that investigated the participants’ irony understanding using a reading comprehension test. In this study, the researchers used antecedent events to test whether the participants needed them in order to understand a statement as irony or not. If they did, it means that the assumption of echoic mention theory is correct because it assumes one requires antecedent material for the speaker to mention. The results show that the participants did not treat a non-normative utterance as irony unless it echoed a former use or thought. Thus the echoic mention account is favored.

Another study that agree on the assumption of the echoic mention theory is the study of Gibbs (1986). Six experiments on comprehension and memory for irony were conducted. One of them examined the role of explicit echoic mention, whether it affects
irony comprehension of the participants or not. Consider some examples from the experiment (p.8):

(13) Gus just graduated from high school and he didn’t know what to do. One day he saw an ad about the Navy. It said that the Navy was not just a job, but an adventure. So, Gus joined up. Soon he was aboard a ship doing all sorts of boring things. One day as he was peeling potatoes he said to his buddy, “This sure is an exciting life.”

(14) Gus just graduated from high school and he didn’t know what to do. So, Gus went out and joined the Navy. Soon he was aboard a ship doing all sorts of boring things. One day as he was peeling potatoes he said to his buddy, “This sure is an exciting life.”

Both stories are ended with an ironic remark as *This sure is an exciting life*. The difference between these two cases is the existence of explicit echoic mention, included in (13) *It (an ad) said that the Navy was not just a job, but an adventure*, but not in (14).

It has been found that the participants did comprehend irony better when an explicit echoic mention of a thought is provided. That means ironic utterance is understood according to the echoic mention theory, not the standard pragmatic view.

In the notion of on-line processing, the participants in Gibbs’ study did not process the literal meaning of ironic statements before deriving the non-literal interpretation as the time used for processing of both literal and ironic utterances did not show significant difference. It means that people do not need extra cognitive processes to analyze the literal meaning of an utterance before recognizing that it flouted the maxim of quality. Instead, contextual information is the thing that influences early processing of ironic statements, and leads the interpretation of such statements directly to the contextually suitable meanings. The available contextual information is very crucial for the hearer in order to effectively understand ironic statements, because the information would display the speaker’s attitude towards what s/he mentioned. Thus, if the context contains enough ironic cue, the ironic interpretation would be computed directly, with no need for the literal interpretation to be accessed (Gibbs, 1986, 1994). Consider the following on-line processing diagram according to this notion:
Given that context information is the crucial element that influences the interpretation of a particular utterance in this direct access of meaning model, it is assumed that the identical mental processes should have driven both literal and ironic utterances. No matter whether the statement is literal or ironic, it should take an equivalent effort for the participants to process such a statement. Ironic utterances should be processed as quickly as their literal counterpart, because people do not need the extra process of rejecting the literal meaning when computing an ironic utterance. It is pragmatic information which presents in the context that is used very early to understand what the speakers mean. Therefore, if the provided context is appropriate and conveys enough cue for the following echoic mention, times for processing of ironic remarks should be equal to times for processing literal utterances.

### 2.1.3 The graded salience hypothesis and the indirect negation view

The precedent role of contextual information in the explanation of direct access model is questioned by Giora’s (1997) graded salience hypothesis. The hypothesis explicates that context has a limited role in order to inhibit activation of salient meaning of a word or phrase which is the first element people compute when encountering any statements, whether they are literal or non-literal. This conclusion is confirmed by the evidence from the study of Rayner, Pacht, and Duffy (1994, cited in Giora, 1997: 186). The results of the study show that the participants took more time to process the less-salient-meaning words than for their controlled counterpart, even when the provided context is heavily supportive of that meaning. That means the lexical meaning of a word
or phrase is prior than the effect of contextual information in processing a particular statement.

The meaning that counted as salience tends to allow people to automatically compute from the lexical meaning of the word or phrase before any extra contextual information is derived, and mostly governed by its conventionality. The conventionality of a word or phrase is “a relation among a linguistic regularity, a situation of use, and a population that has implicitly agreed to conform to that regularity in that situation out of a preference for general uniformity, rather than because there is some obvious and compelling reason to conform to that regularity instead of some other” (Nunberg, Sag, & Wasow, 1994: 492). In other words, if a word has more than one meaning to interpret from the lexicon, a salient meaning of a word is the one people in general are most familiar with, and more frequently use in a certain context.

However, unlike idiom or metaphor, ironic meanings have not been conventionalized in general practice. The most salient meaning of an ironic utterance seems to be the literal interpretation that needs a contradicted context for interpreting as a particular statement as irony. So it could be said that the graded salience hypothesis comes to an agreement with the standard pragmatic view that ironic utterances need extra inferential processes for comprehending. That means, in order to understand an ironic utterance, the salient interpretation (literal meaning) must be computed first, then an ironic interpretation would be created next to solve the incongruence between the first interpretation and the incompatible context.

Such prediction of processing is supported by the results of empirical studies. For example, Giora, Fein, and Schwartz (1998) found that the participants from their response-times experiments adopted the salient (literal) interpretation initially, even when the given context was ironically biased, resulting in longer reading times in ironic items compared to the literal ones. This result is contrary to the direct access model that believes in equivalent processing of ironic and literal statements and the preceding of contextual information. It has been proved in this study that people require the extra inferential processes of canceling the initial salient literal meaning to adopt the less salient ironic interpretation.

Anyway, unlike the standard pragmatic view that suppresses the literal meaning when ironic interpretation arisen, the graded salience hypothesis considers the
cancelled meaning to be retained in order to be contrasted or specify the difference with the ascended interpretation. Consider the following on-line processing diagram according to this notion:

Figure 2.3: *On-line Irony Processing of the Graded Salience Hypothesis*

According to the hypothesis, a reader or listener must initially compute the literal meaning of a potential ironic utterance. Then, after an incompatible context has been detected, the ironic interpretation would arise. The ironic interpretation is compared to the retained literal interpretation in order for difference between the two interpretations to be specified. This notion of retaining of literal interpretation coincides with the indirect negation view (Giora, 1995) that treats irony to be a form of negation—indirect negation.

An indirect negation form is a linguistic choice made by speakers/writers that negates a statement indirectly to generate a particular implicature and to avoid the vague and limited effects of direct negation. A direct negation form of a statement could result in scalar interpretation in which more than one value could be affirmed. Consider the explicitly negated expression *not fat* in the following examples:

(15a) She is not fat, but she is chubby.
(15b) She is not fat, but she is curvy.
(15c) She is not fat, but she is *skinny.

From the scale of “fat> chubby > curvy > skinny,” *not fat* could imply the value’s approximate interpretation *chubby or curvy* as in the statements (15a) and (15b), but
normally excludes its diametric opposite skinny as in the statement (15c). The nature of explicit negation allows the less central members in the same set of the cancelled assertion to take over, not the distant marginal member skinny (Horn, 1989; Giora, 1995; Dillon, 1977).

As irony is an indirect negation, it escapes the vague effect that ordinary direct negation has. Scalar interpretation, that is a result of direct negation, does not affect irony. Irony does not evoke either the most distant or an approximate interpretation because the assertion or the marked utterance is not explicitly cancelled. Instead, such assertion is indirectly negated and implies that the expected state of affairs in the assertion is different or far from a particular situation or event (Giora, 1995). Consider the following example:

(16) Cooper (after being cut in line by Aston): That’s very nice of you. By uttering highly implausible information in the context, praising a rude person, it evokes the interpretation closed to condemnation without cancelling the explicit assertion of praising. Thus, the extent to which Aston’s behavior is far from what Cooper expected is a result of comparing the explicit utterance and evoked interpretation.

Moreover, direct negation is limited to straightly deny some forms of language, such as hedged statements, intensified statements, approximations, and metaphors. Consider the following examples (Giora, 1995: 243):

(17) He is sort of silly.
   (a) I don’t think so. *He is not sort of silly.
   (b) He is not silly.

(18) She is rather annoyed.
   (a) I don’t think so. *She is not rather annoyed.
   (b) She is not annoyed.

(19) She is very very proud of her daughter.
   (a) I don’t think so. *She is not very very proud of her daughter.
   (b) She is not (very) proud of her daughter.

(20) She is a flower.
   (a) I don’t think so. *She is not a flower.
   (b) She is not that beautiful.
The examples (17a) to (20a) illustrate the limited ability of direct negation to straightly deny a particular hedged statement, intensified statement, approximation, and metaphor respectively. In order to make those statements well-formed, the speaker/writer must delete or change some features as did in (17b) to (20b). That might affect or induce degree of intention of each statement. On the other hand, the examples (17) to (20) could implicate a different implicature from what it meant and still be well-formed in the case of ironic reading, because they are indirectly negated.

Giora also suggests the grammar of irony in contexts in term of discourse well-formedness in which it has to be considered and contrasted with the conditions of well-formed non-ironic discourse because they are naturally different from each other. The conditions of non-ironic discourse consist of three requirements: the relevance requirement, the graded informativeness condition, and the deviated marking condition. To achieve the relevance requirement, a non-ironic discourse has to be formed of messages related to a particular discourse topic—a general concept of any discourse that is placed explicitly in the beginning of the discourse. It could be said that this relevance requirement corresponds with the notion of the relation maxim of Grice (1975) that expects contributions to be relevant and appropriate to their preceding text or on-going subject of a discourse. Correspondingly, to conform to the graded informativeness condition, it is essential that each proposition in a well-formed ordinary literal discourse needs to propose more, but an appropriate amount of, information than its precedents. The message also needs to be not less informative than required or may result in the possibility of different interpretation of the meaning. Moreover, when there is any deviation from the relevance requirement and graded informativeness condition, each contribution needs an explicit semantic connector such as furthermore or beside to link such messages for developing coherence within a discourse.

In the case of irony well-formedness, a well-formed ironic discourse has to follow three conditions: the relevance requirement, the marked informativeness requirement, and the incancellability condition. As well as literal discourse, any ironic utterance must conform to the relevance requirement. It has to introduce information that relates to the discourse topic. However, an ironic discourse is well-formed if it violates the graded informativeness requirement and conforms to the marked informativeness requirement by introducing too much or less information than required.
When the information is too much or less informative for the given context, it evokes a more appropriate unmarked interpretation, either a less-than or more-than interpretation. This more probable interpretation proposes a humorous effect that conveys “criticism and disillusionment” (Giora, 1995:245). In order to assess those implicatures, the addressee has to compare and contrast the marked message with the unmarked one. Thus, a well-formed ironic discourse must conform to the incancellability condition in which the interpretation of marked utterance is not suppressed, but being implicitly negated to introduce a particular state of affairs. To examine the case of irony well-formedness, consider the following example:

(21) Aston (after Betty asked him why he never has a girlfriend): I’m overqualified.

In the utterance (21), Aston follows the relevance requirement by stating within the accessible discourse topic of his own relationship. Besides, by contributing highly improbable information to the discourse, Aston’s utterance conforms to the marked informativeness requirement. This implausible marked statement evokes the less-than interpretation of negation that communicates far less information than what Aston explicitly uttered, which is close to self-condemnation. The more-probable interpretation arises without canceling the less probable one (conforming to the incancellability condition), so the addressee can highlight the difference between the more desirable state of affair of praising and the more unfortunate state of affairs with condemnation.

To conclude, English irony is described differently according to different approaches of the standard pragmatic view, the echoic mention theory, and the indirect negation view. The standard pragmatic view treats an ironic utterance as the implicature that is opposite of what is being said, resulting from the maxim of quality flouting, while the echoic mention theory believes that attitude echoing from the mention is essential for an utterance to be ironic, not an opposite meaning of any literal interpretation. On the other hand, the indirect negation view sees irony as a kind of negation that is indirectly negated to convey a more probable interpretation to the ironic discourse. Each comprehending view correlates to different on-line processing of irony methods. It is essential to firstly process a literal meaning of any statement for the standard pragmatic view. After detecting that the literal meaning is contradictory to the
given context, the ironic interpretation of opposite meaning arises and the earlier interpretation substituted. That means processing of ironic statements needs more effort in rejecting the first interpretation than processing literal ones that need none.

In the case of understanding irony in the echoic mention theory’s way, what is the priority to process an ironic statement is context that contains an echoic mention. It coincides with the direct access view in which the contextual information, either in the literal or ironic discourse, is interacted first. The literal meaning is not automatically analyzed before the figurative counterpart is derived. If the context contains enough ironic cue, the ironic interpretation would be computed directly, with no need for the literal interpretation to be accessed. Thus, ironic utterances do not need extra inferential effort comparing to literal statement computation.

The on-line processing that coincides with the indirect negation view is the process of the graded salience hypothesis. The hypothesis comes to an agreement with the standard pragmatic view that irony utterances need extra inferential processes for comprehending. It counts the salient meaning, usually literal meaning, of a word or phrase to take a priority attention. Then, to solve the incongruence between the first interpretation and the incompatible context, the hearer/reader comes up with ironic interpretation. However, unlike the standard pragmatic view that suppresses literal interpretation when the ironic one has arisen, the graded salience hypothesis predicts that the first interpretation is maintained so that the dissimilarity between them may be compared.

In the next section, the present study discusses the relationship between irony processing and pronominal reference. The notion of pronominal reference is explained how it is an indicator of a literal-meaning retention in which it would pin point whether the standard pragmatic view, the direct access view, or the graded salience hypothesis is the way people process an ironic utterance.

2.2 IRONY PROCESSING AND PRONOMINAL REFERENCE

This section focuses on the influence of irony on the subsequent pronominal reference text. The relationship would explain whether literal or ironic (or both) interpretations remain active during the on-line processing of irony in which different theories of irony processing make different predictions in this notion.
Because both the standard pragmatic view and the graded salience hypothesis predict an extra inferential process in computing an ironic statement, it could be hard to distinguish these two theories when looking only at the reading time course. Longer reading time in ironic statements, compared to the non-ironic counterpart, is expected in both theories. This is because ironic statements need additional processing with re-interpretation of the literal meaning to be ironic, while literal statements need none. However, these two theories could be differentiated by considering interpretation, whether it is literal, ironic, or both, that is retained during the on-line irony processing.

According to Filik and Moxey (2010), a novel way to indicate the retained interpretation is to examine the effect of irony on the processing of subsequent text containing pronominal reference. This pronominal reference is an anaphora phenomenon where a pronoun can refer to another noun phrase in the discourse (Solan, 1952). Consider the following example:

(22) After Cooper hit Betty, he was arrested.

The singular pronoun he is an anaphor, referring back to its antecedent Cooper. The phenomenon may look simple in this case. However, in real communication, there is a wide range of more complex referential relationships, for example a case of cataphoric reference where the antecedent appears after its anaphor. One complex pronominal reference phenomenon that has been extensively studied is the processing of anaphoric reference to positive and negative quantified antecedents.

Positive quantifiers (e.g. many, all, a few) and negative quantifiers (e.g. not many, not quite all, few) are proved to influence the ease with which a particular discourse reference is referred to. There are possible sets of definition that need to be taken into consideration when a sentence is a quantified statement—the reference set and the complement set. For example, when one considers the quantified statement “many of the students got a good score on the test”, the sets that need to be taken into account during logical reasoning are as in the following:

Set 1 (the reference set): a necessary set of students who got a good score on the test

Set 2 (the complement set): a possible set of students who did not get a good score on the test (complement to the Set 1)
However, these sets are not equally accessible. The element that indicated the accessibility is the positive quantifier *many*, in which the most accessible set for this example is the reference set of students who got a good score on the test. It is because positive quantifiers have the ability to set their discourse entities to which the predicate is true. On the other hand, negative quantifiers are involved in negating the discourse entities to make the predicate false. That means the complement set reference would be drawn if the quantifier is negative as in the sentence “not many of the students got a good score on the test.”

This assumption was proved in the study of Moxey and Sanford (1993, as cited in Filik, Leuthold, Moxey & Sanford, 2011). The results of the study showed that there are significant patterns of a positive quantified statement in a reference set and a negative quantified statement in a compliment set. Consider the different patterns people make when they are asked to continue sentences, which carry either positive or negative quantifier, with a new sentence beginning with the plural pronoun *they* in their language production task (p.3786):

(23) Many of the diners finished their main course.
(24) They cleaned their plates and sat back happily.
(25) Not many of the diners finished their main course.
(26) They wanted to save some space for dessert.

The sentence (23) that contains the positive quantifier *many* tends to be followed by continuations as (24) in which the plural pronoun *they* refers to the reference set of people who finished their main course. However, the sentence (25) that contains the negative quantifier *not many* tends to be followed by continuations as in (26) because the plural pronoun *they* is more acceptable to refer to the complement set of people who did not finish their main course. Thus, it can be concluded that positive quantifiers lead to focus on the reference set, while negative quantifiers lead to focus on the complement set. From the above assumption, it could be predicted that people should process the reference set reference easier than the complement set reference when the antecedent statement contains a positive quantifier (and vice versa if the antecedent statement contains a negative quantifier).

However, if a quantified statement is uttered ironically, it may affect the normal patterns of pronominal reference stated above. Consider the following examples:
(27) Cooper (to Aston, after Aston’s restaurant got bad reviews on internet): Clearly, many people satisfied the service of your restaurant.

(28) Aston: They’re surely paid by my rival to write such comments.

(29) Cooper (to Aston, after Aston’s restaurant got good reviews on internet): Clearly, not many people satisfied the service of your restaurant.

(30) Aston: They’re very nice to write such comments.

In this case of the statement (27) where a positive quantifier is used ironically, the subsequent complement set reference (i.e. the people who were not satisfied with the service) as in the example (28) seems more acceptable than the subsequent reference set reference (i.e. the people who were satisfied with the service) as in the example (30). On the contrary, in the case of the statement (29) where a negative quantifier is used ironically, the subsequent reference set reference seems more acceptable than the subsequent complement set reference. Thus, for ironic circumstances, it could be predicted that people should process reference set reference easier than complement set reference when the antecedent statement contains a negative quantifier (and vice versa if the antecedent statement contains a positive quantifier).

According to the standard pragmatic view, as the literal interpretation is suppressed when processing an ironic statement, only the ironic interpretation is active. Therefore, the above simple reversed pattern of pronominal reference towards the antecedent quantifier in ironic circumstances should be supported. It could be predicted in this view that, when the statement is ironic, people should process reference set reference easier than complement set reference when the antecedent statement contains a negative quantifier, and vice versa if the antecedent statement contains a positive quantifier. This prediction would be the same in the direct access model because ironic interpretation is the only interpretation accessible in ironic utterances. On the other hand, according to the graded salience hypothesis, both literal and ironic interpretation is retained when processing an ironic utterance. Thus, the reference set and complement set references, either following the antecedent statement containing a positive or negative quantifier, should be equally accessible in an ironic circumstance.
To conclude, pronominal reference could indicate whether ironic alone or both interpretations remain active during the on-line irony processing. If the reference set reference is easier to process than the complement set reference when follows an antecedent statement containing a negative quantifier in an ironic circumstance, it means that literal interpretation is suppressed and only ironic interpretation remains active. But if it is equivalent to process reference set reference and complement set reference when following either an antecedent statement containing a negative or positive quantifier in an ironic circumstance, it means that both literal and ironic interpretation are retained.

In the next section, the present study explains how irony is comprehended in L2 which is different from L1 understanding as there are additional factors for L2 learners in order to successfully comprehend any ironic utterance.

2.3 IRONY COMPREHENSION IN L2

This section discusses additional factors for comprehending ironic utterances in L2 learners. The learners' second language proficiency and cultural knowledge are considered as it has been proved that those factors affects a great deal in understanding ironic expressions.

2.3.1 L2 language proficiency and irony comprehension

The effect of language proficiency on irony comprehension seems plausible as the learners with high proficiency should have more pragmatic awareness to comprehend ironic statements than the lower level learners who still have some difficulties understanding basic syntax or morphology of the same statements. Learners with high proficiency tend to have more benefits as they already possess the necessary linguistic knowledge, and are able to use that knowledge as a tool to analyze the given pragmatic features.

The study of Khawaldeh (2015) is one of the works that examines the understanding of irony in L2 learners. The results show that linguistic competence in the target language depends a great deal on understanding ironic expressions. The obtained data from a comprehension test, questionnaires, and semi-structured interviews illustrate that the participants had difficulties in comprehending ironic
statements because of their lack of necessary linguistic competence. 26.6% of the participants reported that they had some vocabulary difficulties. This deficient knowledge of lexical items might be the reason that causes the inability to differentiate between the literal meaning and ironic interpretation of utterances.

The assumption about learners’ language proficiency that affects their ability to comprehend ironic statements is also affirmed by the study of Shively, Menke, and Manzón-Omundson (2008). The study examined ironic comprehension of L2 learners of Spanish by comparing three groups of participants separated according to their proficiency that was defined by the length of taking the target language classes of six, four, and two semesters. They found that the more proficiency in the target language, the greater accuracy the learners demonstrated in perceiving irony. Most of the students in a second-semester class did not understand irony in any test items and performed the least accurate of the three class levels. The fourth-semester class was more accurate than the second-semester class yet performed less accurately than the sixth-semester class students who perceived irony accurately the highest of the three levels. That means learners with higher proficiency tend to perceive ironic utterances more accurately than the lower-level learners.

Shively et al. (2008) also indicates that the lexical knowledge of the target language helps L2 learners gain more understanding of ironic utterance. If the learners do not know or misunderstand certain key lexical items in an ironic statement, they would not be able to come up with the ironic interpretation. For example, the case of the Spanish word *listo*, for which the possible translation could be either *clever* or *ready* depending on the context given. Many students, who are more familiar with the meaning *ready*, as it is used more often in their second language classroom, misinterpreted *listo* to mean *ready* and could not understand the item in the experiment to be irony (in which the appropriate meaning in the item should be *clever* as the utterance is translated to be “Too bad that they’re not as clever as you, the geniuses, huh?”).

Correspondingly, the study of Manowong (2011), that investigated factors which underlie L2 students’ ability to understand implicatures, found that the participants’ lack of linguistic competence in terms of grammar or vocabulary prevented them from being able to draw non-literal interpretation of the conversational
implicature in their second language. The researcher gives an example of the expression “Is the Pope Catholic?” where one of the participants did not know the meaning of either the word Pope or Catholic. As a result, that student could not draw an implicature when the statement was in a non-literal context, let alone understand the literal meaning of the statement itself.

2.3.2 Culture-dependent differences

The influence of variations of different cultures is proved to be a significant factor in constructing contextual assumptions in non-literal discourse. According to Bouton (1990, 1992, as cited in Togame, 2016), for example, if the Thai idiom kāang khwāang khoo is literally translated into English, one would come up with the translation of fishbone that got stuck in one’s throat. (Thai words and examples in this study are presented in a phonemic system according to the one used in the dissertation of Panpothong, 1996, which is as close as possible to spoken language. See the orthographic system in Appendix A) However, it is clearly understood in Thai culture that the idiom means someone/something is in the way, which is similar to the English idiom third wheel. In turn, if third wheel is literally translated into Thai, it would not mean kāang khwāang khoo either.

Many researchers believe that grammatical accuracy alone does not make L2 learners proficient in understanding non-literal discourse, as Lightbown and Spada (2013: 65) indicated that “even if learners acquire a vocabulary of 5,000 words and a good knowledge of the syntax and morphology of the target language, they can still encounter difficulty in using language.” What is conventional for a specific community, might not be familiar at all for people who do not belong to the same culture. According to Kim’s (2014) study that investigated Korean adult learners of English in interpreting sarcasm in spoken English, L2 learners tend to use their L1 schemas in order to interpret L2 ironic utterances. The results of the study showed that Korean participants use three distinct cultural schemas to comprehend instances of English irony: concept of irony in Korean, verbal strategies, and non-verbal strategies.

Because irony is conceptually defined as ban-eo in Korean, in which it literally means opposite language, the participants treat some situations that contradicted to the
given context as irony in the way that native speakers do not. Consider the following excerpt of conversation from the study’s experiment (Kim, 2014: 198):

(31) Rachel: Airport, airport. Ross, not alone, Julia, arm around her.
    Cramp, cramp.
    Chandler: (31a) Ok, I think she’s trying to tell us something. (31b)
    Quick, get the verbs.
    [Rachel hits Chandler on his arm.]
    Chandler: Ow.
    Rachel: You, you, you said he liked me. You, you slowpoke!
    Ross: (31c) That’s all right, Rache, we got the bags. Hi, hello. Julia,
    this is my sister Monica, Chandler, Joey. Everyone, this is Julia.
    Julia: (31d) Hi, but I’m not here, you haven’t met me. I’ll make a
    much better first impression tomorrow when I don’t have 20 hours
    of cap and plane on me. (Original italicized)

39% of the Korean learners considered the statement (31d) as irony, while none of the natives did. The participants who selected the utterance as irony identified the reason as because the statement contradicted the actual situation where Julia was actually physically there. That means the concept of ban-eo interferes with the Korean learners when they compute English utterances.

Kim also detected different strategies used for noticing and understanding ironic statements between Korean learners and the natives. While the native participants tend to use formulaic expressions, like yeah, right or oh, great, as a hint to detect irony, Korean participants considered the statements that mention something too obvious or obviously untrue as irony. Consider the following excerpt of conversation from the study’s experiment (Kim, 2014: 199):

(32) Ross: Hi.
    Joey: Hey!
    Chandler: Hey!
    Ross: [sigh]…I have to go to China.
    Joey: The country?
    Ross: (32a) No no, this big pile of dishes in my mom’s cupboard. Do
    you guys know who Carl is?
Chandler: (32b) *Uh, let’s see…Alvin…Simon…Theodore…no.*
Ross: Well, Rachel’s having drinks with him tonight.
Joey: (32c) *Oh no! How can she do that when she’s never shown any interest in you?*
Chandler: Forget about her.
Joey: He’s right, man. Please. Move on. Go to China. (32d) *Eat Chinese food.* (Original italicized)

21% of the Korean participants considered the statement (32d) as irony, because the statement provides too obvious information that does not need to be uttered out loud. For that reason, some participants drew a conclusion that, by suggesting Ross eats local food, which is very normal and too obvious a thing to do, Joey might try to be ironic about the situation Ross will be stuck in. Moreover, the Korean participants also used non-verbal strategies, like body movements, to help identifying ironic sense of utterances. For example, 21% of the Korean participants considered the statement (32c) as an irony because of Ross’s exaggerated manner of dropping his luggage and then opening his arms widely. The participants explained that Ross’s manner shows his intended negative feeling towards Rachel, and thus makes the statement ironic. However, none of the English native participants raised the topic of body movement as a strategy to detect irony.

Based on the above results, it could be said that understanding of cultural factors is essential for L2 learners to interpret any non-literal utterance. The perceptions of people in a particular community might be different from other group of people, which results in different ways of interpreting any figurative language according to their specific culture. Thus, irony or other non-literal language is usually culture-dependent in a way that could be interpreted differently in different cultures.

In order to interpret irony the way the natives do, L2 learners must understand the way people in those cultures think or perceive things. According to Togame (2016), L2 learners tend to be exposed to the target language culture as they spent time in the target language countries, in which the more time they spent, the more aspects of the culture they are exposed to. This length of exposure is crucial for L2 learners to comprehend irony as it is said that cultural knowledge of the learners seem to govern the way they interpret ironic utterances. This assumption is also affirmed by the study...
The reason that the participants in six-semester classes, different from the other two classes of four and two semesters, were the most accurate in understanding ironic utterances was not only because of their language proficiency, but also their target-language cultural knowledge. Not only was the learners’ language proficiency higher with more length of time taking the target language classes, but also the target-language cultural knowledge was greater because they were involved in the target culture more than the other two groups.

To conclude, L2 learners need both language proficiency and the target-language cultural knowledge in order to comprehend irony effectively in the way the natives do. It is impossible that learners would be able to draw an ironic interpretation if they do not understand basic lexical or grammatical knowledge of the target language. Alongside language proficiency, the learners also need the target-language cultural knowledge for understanding the target-language irony, because people in a specific culture might interpret some features of a language differently from other groups of people.

In the next section, irony in Thai language, this study’s participant first language, is discussed in order to identify specificity of Thai irony, and whether it is different from English one or not.

2.4 THAI IRONY

This section investigates the use of irony in Thai. The section first reviews the characteristics of Thai irony, including significant types of speech acts found to be compatible with Thai ironic expressions. Then, the section examines the functions of irony in Thai which are to convey a negative attitude towards someone and to be humorous.

2.4.1 The characteristics of irony in Thai

As Western and Thai cultures are different in several ways (Komin, 1990) and figurative language interpretation for L2 learners depends greatly on cultural specificity (Manowong, 2011; Kim, 2014; Togame, 2016; Shively et al., 2008), it may reasonably be questioned if irony in Thai is different from English and other languages’ irony.
According to the Royal Thai Dictionary, the English word *irony* is generally translated into Thai as *phachót* or *prachótprachan* which means a contemptuous remark intended to hurt another mentally. However, according to Panpothong’s (1996) study which investigated Thai irony mainly in contemporary novels and TV dramas, Thai irony could be classified into four types of speech acts according to Searle (1969, cited in Panpothong, 1996: 52). Yet, in order to treat any speech act as irony, the expression must violate the sincerity condition. The speech acts that are compatible with irony in Thai are assertives, directives, expressives, and commissives.

2.4.1.1 Assertives

Assertives irony is apparent when the sincerity condition is violated. That is to say, an utterance will be counted as irony when the speaker utters something but does not believe that the thing is true. However, in order to signal irony, Thai ironists apply some devices repeatedly, which are the use of contradictory adjacent expressions, irrational expressions, overly exaggerated expressions, and language inappropriate to the status of the interlocutors.

According to Panpothong, a popular device to signal irony among Thai speakers is the use of contradictory attribution to the adjacent—the immediate context—expression. Normally, irony in this kind of device goes by the expression of feeling or evaluation of the speaker followed by the contradicted statement of the former feeling. Consider the following example (Panpothong, 1996: 34):

(33) A woman criticizes her sister who has a boyfriend much younger than her.

kēe attractive and fashionable  dii good  cataay pay so  kĒE go old

cataay yang mii nûm ma sayòp khonraw
so still have young man come subdue people

nî naá yùuyùu kÔO long luu
this fin. Stay descend rub

krabÎang hây khon kháw yiap
tile let people they condemn

‘So cool! She is this old but can still subdue young men. Someone just can’t help defiling herself.’
The expression ลำดับที่ 3 ‘so cool’ that the speaker uttered is counted as irony. It is because the adjacent expression, ผู้ที่มาจากเคยดู ‘someone can’t help defiling herself’ which is contradictory to the former statement, helps the hearer realize that actually the expression ลำดับที่ 3 is insincere. Instead, the speaker does not see any good for her sister to have a very young boyfriend, as it is unacceptable to the society and people will decry her.

Irony in Thai is also signaled by irrationality, or saying something contradictory to common sense. Consider the following example (Panpothong, 1996: 37):

(34) Wiroon told the girl he liked that he had saved a lot of money. The girl replied:

so Wiroon rich big already
si ∆aw ngaan kÔO tháp taay ná cá
fin. a moment money crush die fin. pol.

‘So, Wiroon, you have become very rich. You might be crushed to death by your money.’

The expression ∆aw ngaan kÔO tháp taay ná cá ‘you might be crushed to death by your money’ is irony signaled by irrationality because the statement appears to be illogical. There is no way money could crush Wiroon to death. Thus, it could be said that the speaker expressed the statement to convey a sarcastic attitude towards Wiroon who said that he had a lot of money.

Using of overly exaggerated expressions is another way to signal irony in Thai because it could lead the hearer to think that the speaker is insincere. However, using exaggeration does not assure that the utterance is irony. It only makes the utterance much more likely to be irony. It is because exaggerated expressions could also be used to make the conversation more interesting. Nevertheless, overly exaggerated expression that is taken as irony could be seen in the following example (Panpothong, 1996: 39):

(35) Mada usually reminds her husband, Pichit, that without her he could not be successful. One day Pichit said to Mada:

you be mentor I come throughout
weelaa yîisìp kwàa pii bunkhun thûam húa
time twenty more year favor overwhelm head
thûam  hûu  con  phôm  ca  sămlák
overwhelm  ear  till  I  will  to  be  suffocated
taay
die

‘You have been my mentor all the way for more than twenty years.
I am overwhelmed and almost suffocated with your favor.’

The speaker overstates his utterance by adding the statement phôm ca sămlák taay ‘I am almost suffocated’. The overly exaggerated expression makes the audience know that he is insincere and that helps the audience realize that the speaker intends to convey a sarcastic attitude towards his wife. Thus the overstatement phôm ca sămlák taay is counted as irony.

The speaker is also able to use language that is inappropriate to the status of his/her interlocutor to signal irony. Thai people use different forms to speak with people with different status; for example, there is a special vocabulary called raachaasàp ‘royal vocabulary’ for one to speak with royal family members and Buddhist monks. Thus, using this royal vocabulary to speak with someone with the same social status as the speaker is inappropriate and could hint to the audience that the statement is stated ironically. Consider the following example (Panpothong, 1996: 41):

(36) Kudan often questions her boyfriend when he comes home late. One day he replied:

ʔaray  níd  kÔO  ca  hây  kràaptuun
anything  small  will  give  tell (royal)
wanyangkhâm
certainly

‘You want me to report to you even trivial things.’

As the speaker uses kràaptuun ‘to tell’ which is a raachaasàp, it normally has to be presupposed that the speaker is speaking to a royal family member. However, in the case of the example (36), the speaker uses this raachaasàp with his girlfriend who has the same social status as him. That means the speaker tries to convey ironic interpretation implying that his girlfriend is not a queen, thus she could not command him to tell her everything.
2.4.1.2 Directives

In the case of directives that are the desire of a speaker for his/her interlocutor to perform something (Searle, 1979), irony in this type of speech acts could arise by the fact that the speaker does not really want the hearer to do something that he/she explicitly proposes. Similar to the assertive irony, there are several devices that could signal that the expression is stated ironically. Panpothong indicates that there are four devices repeatedly found as irony in this type which are askings, orders, suggestions, and permittings.

Because a speaker normally wants an answer from the interlocutor when he/she asks something, askings are counted as directives. Thus the sincerity condition for askings is that the speaker wants the hearer to provide him/her an answer. When this condition is violated because the speaker actually does not want any answer, irony is present. Consider the following example (Panpothong, 1996: 54):

(37) A conversation between Lamduan and her daughter, Kudan.

Lamduan: kEE kàp kháw na chÔOp kan you and he top. like each other rĬI ques.

‘Do you and that guy like each other?’

Kudan: chÔOp yangngay khá like how fin.

‘What do you mean by ‘like’?’

Lamduan: mĚE ?ayûu kii khùap cá excl. for surprise age how many year fin nńu little girl

‘How old are you, little girl? (with an exclamation for surprise)’

The question in the example (37) undoubtedly signals irony as it is unlikely that Lamduan does not know the age of her own daughter. Thus, when the speaker does not really want any answer from her interlocutor, the sincerity condition is flouted. Therefore, the question ?ayûu kii khùap cá nńu ‘how old are you, little girl?’ is used by
the speaker as irony to convey a negative attitude towards the interlocutor, her daughter, that she pretends to be naïve.

The next device for directive irony is to violate the sincerity condition on orders. The condition requires the speaker’s desire for the hearer to perform according to the order. Consider the following example when the speaker obviously intends that she does not really want her interlocutor to do what she ordered (Panpothong, 1996: 57):

(38) After telling her husband who got furious with the son to calm down but he did not listen to her, a woman finally said:

\[
\text{ngân tì man tòp man tÔOy man in that case beat it slap it hit it khâwpay proceed 'Beat him, slap him, and hit him. Go ahead.'}
\]

The speaker conveys a sarcastic attitude towards her husband by insincerely ordering him to hurt their son. The irony remark is signaled to be insincere by over emphasis on the words that share some semantic features in one sentence which are the actions of \textit{tìi} ‘beat’, \textit{tòp} ‘slap’, and \textit{tÔOy} ‘hit’. This kind of over emphasis of words results in the exaggerated expression that makes it clear to the audience that it is ironic.

Another type of directive irony is ironic suggestions. When the speaker does not actually wants his/her hearer to do what is explicitly suggested, he/she violates the sincerity condition on orders. Consider the following example (Panpothong, 1996: 58):

(39) Phuwadon told his girlfriend who is older than him that he was going to tell other people that she was his elder sister. The girlfriend replied:

\[
\text{thammay may bÔOk waa pen pàa là yá why not tell comp. be aunt fin. fin.}
\]

‘Why don’t you tell them I’m your aunt?’

The girlfriend in the above example is not really much older than Phuwadon because he could consider telling other people that she is his elder sister, not older status like \textit{pàa} ‘aunt’. Thus, the suggestion \textit{thammay may bÔOk waa pen pàa là yá ‘why don’t you tell them I’m your aunt?’} could not be taken seriously. It is more likely that the girlfriend intended to violate the sincerity condition to convey the negative attitude towards Phuwadon that she does not like for him to not introduce her as his girlfriend.
The last type of directive irony that found in Panpothong’s study is permittings. Irony in this type violates the sincerity condition as same as other types by the attempt of the speaker to intend that he/she does not really want the hearer to perform some future act. That means, in this type, the speaker does not desire for the permitted act to be done. Consider the following example (Panpothong, 1996: 59):

(40) Praya-apiban was angry when his children asked if they could rearrange certain things in the house. The following expression was said by Praya-apiban to his daughter.

\[
\begin{align*}
\text{pûak kEE ca khôn sômëtät } \text{?aray} \\
group \text{you will carry property anything} \\
kÔO \text{?aw pay th@ may tÔng maa khÔO} \\
take \text{go fin. not must come ask} \\
?anûyâat khâa dÔOk diawniî khâa man pen \\
permission \text{I fin. now I res. be} \\
khon kÔ lûuk kÔ lân sia lÊEw \\
person hold child hold grand-child fin. already
\end{align*}
\]

‘You can take anything. You don’t have to ask for my permission.
I’m a useless person who has to depend on young people.’

According to the context that the speaker is upset, his permission pûak kEE ca khôn sômëtät ?aray kÔO ?aw pay th@ ‘you can take anything’ could be treated as insincere. It is more likely that the speaker intends to convey a sarcastic attitude towards his daughter, not to permit her to do whatever she wants. Thus the permitting expression in the example (40) is ironic.

2.4.1.3 Expressives

Expressives are the acts in which a person uses for expressing his/her feelings and attitudes; for example, the use of congratulations, apologies, thanks, condolences, and welcomes. Similarly to the other types of ironic speech acts, expressive irony comes from the violation of the sincerity condition. However, it is impossible to formulate a universal sincerity condition for various types like directives do. It is because the illocutionary point, or the purpose of a type of illocution (Searle, 1979), of various types of use in expressives are varied (Harverkate, 1990, cited in Panpothong, 1996). For example, while the sincerity condition of congratulations is that the speaker feels happy
for the hearer’s achievement on something, the sincerity condition of condolences is that the speaker sympathizes with the hearer who has suffered a loss.

According to Panpothong, a popular type of expressive irony frequently found is ironic thanks. The ironic thanks arise when the speaker acts as if he/she feels grateful for what the hearer has done, but actually does not appreciate it. Consider the following example (Panpothong, 1996: 62):

(41) A mother does not like her son-in-law because her daughter has to work so hard to help him. One day, the son-in-law told the mother that he really appreciated what his wife has done for him. The mother replied:

kÔO khÔOpechay là yà thîi yang hĕn lûuksăaw chán miiprayôot
‘Thanks for recognizing that my daughter is useful.’

Based on the fact that the mother in the example (41) does not like her son-in-law, the expression kÔO khÔOpechay là yà thîi yang hĕn lûuksăaw chán miiprayôot ‘thanks for recognizing that my daughter is useful.’ suggests insincerity of the speaker.

2.4.1.4 Commissives

Commissives are the acts where the speaker commits him/herself to do something; for example, the use of language to promise, to offer, to invite, and to threaten. Concerning the sincerity condition, the speaker must really intend to do something for the hearer as the sincerity condition on commissives is ‘intention’ (Searle, 1979). When the speaker commits him/herself to perform an act that he/she actually could not perform or does not actually intend to do, the speaker violates the sincerity condition and an ironic interpretation is necessary.

However, commissive irony is rarely found in Thai language. According to Panpothong, it is because of the risk that the hearer might take the commissive irony literally and that would obligate the speaker to perform something he/she could not do or does not prefer to do. Nonetheless, an example of commissive irony in Thai could be seen as following (Panpothong, 1996: 66):
(42) May knows that her close friend, Koy got sick because she ate spicy papaya salad. The following offer was made by May when she went to visit her friend.

dîaw yennîí mee tam sômtam hây
a moment this evening May make papaya salad give
kin eat

‘For dinner, I’m going to make papaya salad for you.’

May’s offer of making papaya salad for Koy is obviously insincere based on the fact that she knows that her friend got sick because of this kind of spicy food. Thus the speaker is more likely to convey a negative attitude towards her friend in which she should not eat this kind of food in the first place.

Irony in Thai could be compatible with four out of the five speech acts classified by Searle. The only speech act where there is no any example of irony in Thai is the act of declarations. Declarations are the acts of declaring a state of affairs into existence; for example, declaring a state of war, or nominating someone as a candidate of something. The acts are claimed to have no any of the sincerity condition to be applied (Haverkate, 1990, cited in Panpothong, 1996). Thus, it is impossible for declarations to be performed ironically as there is no sincerity condition to violate.

2.4.2 The functions of irony in Thai

As said earlier at the beginning of this section, Thai irony, or phachôt or prachótpachan, is defined as a contemptuous remark intended to hurt another mentally. Thus, from this definition, it could be generally assumed that irony in Thai is mostly used for sarcasm. This assumption is accurate according to the findings from the study of Panpothong (1996) which found that most of Thai irony in contemporary novels and TV dramas is positive irony, or irony that has an unfavorable meaning. The sarcastic attitude from an ironic expression is based primarily on contextual information which could be seen throughout the previous sub-section of characteristics of irony in Thai. It is because Thai irony is not specified by any special lexical items or distinctive syntactic structures. In order to recognize an irony, the hearer must be using contextual
information or background knowledge to guide the interpretation. Consider the following example (Panpothong, 1996: 105):

(43) The following expression was said by Phuangphet to her daughter when she learned that her husband who left her for a younger woman has just been dumped by the lover.

raig ammatà tÒOn ayú hòksip thòo?@@y

‘Everlasting love at the age of sixty. Alas!’

Without context, the hearer would not be able to recognize her mother’s utterance as irony because it could also be interpreted literally that the love is everlasting. However, as said in the context that the husband has just been dumped by the lover, it is undoubted that the speaker utters the statement insincerely to convey the sarcastic attitude towards her ex-husband.

Thai irony targets the addressee in the most of the cases. However, when the target is not the addressee, it usually is someone who is related to the speaker and the hearer somehow. It is because the hearer needs some background knowledge in order to recognize a statement as an irony. The example (43) could explain the matter very well because the hearer might not understand the statement as irony if she is not the speaker’s daughter who knows that the husband left the speaker for a younger woman and has just been dumped. Panpothong also indicates that a statement that is intended to hurt someone the hearer does not know is rarely found in Thai.

However, even when both the speaker and the hearer share a mutual background knowledge, different social status of the speaker and the hearer might affect the use of irony as ironic remarks seldom occur when the hearer is older and/or more superior to the speaker. It can be seen in the findings of Panpothong, shown in the Table 2.1, that social roles of the interlocutors affect the amount of using ironic utterances.

<table>
<thead>
<tr>
<th>Participant (S-H)</th>
<th>Number of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married couples</td>
<td>127</td>
</tr>
<tr>
<td>Close friends</td>
<td>91</td>
</tr>
<tr>
<td>Lovers</td>
<td>56</td>
</tr>
<tr>
<td>Parents-children</td>
<td>38</td>
</tr>
<tr>
<td>Social Role</td>
<td>Number</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Family members (H is younger)</td>
<td>34</td>
</tr>
<tr>
<td>Acquaintances</td>
<td>27</td>
</tr>
<tr>
<td>In-laws (H is younger)</td>
<td>22</td>
</tr>
<tr>
<td>Adversaries (wife-mistress, etc.)</td>
<td>22</td>
</tr>
<tr>
<td>Children-parents</td>
<td>19</td>
</tr>
<tr>
<td>Employer-employee</td>
<td>15</td>
</tr>
<tr>
<td>Family members (H is older)</td>
<td>13</td>
</tr>
<tr>
<td>Employee-employer</td>
<td>11</td>
</tr>
<tr>
<td>In-laws (H is older)</td>
<td>3</td>
</tr>
<tr>
<td>Strangers</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 2.1: *Actual Number of Verbal Irony Used by Speakers of Various Social Roles*

It is in the conversations between married couples in which the participants have the same status, that irony occurs the most, while the occurrence of irony is only 3 times when the hearer is older than the speaker as in the case of ‘in-laws (H is older)’. The following example is also not common in Thai as the hearer is superior to the speaker (Panpothong, 1996: 108):

(44) Bancong has just been informed that he was transferred to a remote place. The following conversation is between Bancong and his immediate superior, the deputy governor of a province.

Bancong: kÔO dii khŎOráp yîng pay klay good pol. the more go far
kÔO yîng dii kÈE krăphôm the more good for me
phÓ phôm mây mii phûak because I not have backers
khâangnay krungthēp săk khon inside Bangkok even class.

‘Good! The further the better for me because I don’t have any backers in Bangkok.’

As the speaker was transferred to a remote place, this might make him feel frustrated, thus he attempts to express his negative feeling. He uses an ironic expression kÔO dii ‘good!’ to convey sarcastic attitude because his interlocutor has higher status than him.
While irony seems to be one of the popular devices for humor among English speakers, it is not widely used for this purpose in Thai. According to Panpothong’s 481 ironic remarks found in the contemporary novels and TV dramas, only 13 ironic statements are intended as playful irony, or irony that is purported for humor. The following example is one of playful irony (Panpothong, 1996: 112):

(45) Phummavan was courting a woman. In the following conversation, he told the woman that he missed her so much that he could not sleep. She felt flattered and replied with ironic suggestions.

Woman: mây làp kÔO thaan yaanOOnláp si khá
not sleep take sleeping pill fin. pol.
‘If you can’t sleep, why don’t you take sleeping pills.’

Phummavara: kìi mét dii
how many tablet good
‘How much should I take?’

Woman: hâasip mét kamlangmÔ
fifty tablet appropriate
‘Fifty tablets might be a right dose.’

Because the context suggests the lovely atmosphere of in-love couples, ironic suggestion mây làp kÔO thaan yaanOOnláp si khá ‘if you can’t sleep, why don’t you take sleeping pills.’ is likely to be playful rather than sarcastic.

To conclude, there are four types of Searle’s speech acts that are compatible with Thai ironic expression. They are assertives, directives, expressives, and commissives. Thai irony in all these acts arises by the violation of the sincerity condition by the speaker. The popular devices to signal irony in assertive utterances are the use of contradictory adjacent expressions, irrational expressions, overly exaggerated expressions, and inappropriate language. Mainly, Thai irony functions to convey a sarcastic attitude towards someone who is in the same or lower social status to the speaker. Beside sarcastic, Thai irony is also found to intend humor. However, it is not widely used for this purpose.

In the next section, related previous studies about irony processing are discussed in order to develop a full understanding of the theoretical background deliberated in the above sections.
2.5 RELEVANT STUDIES

This current section deliberates mainly on the study of Filik and Moxey (2010), since the study is used as the model of the present research. This section also provides discussion of other previous empirical studies being done in irony processing. The discussion offers an overall picture of the notion of irony processing.

Filik and Moxey (2010) investigated the on-line processing of written irony using an eye-tracking method by recording eye movements of 48 native English speakers from the University of Glasgow Community while they read sentences, either intended ironically or non-ironically. There was a short text provided in each experimental item, which contained positive or negative quantified statements in ironic or non-ironic contexts, followed by pronominal reference of reference set or complement set. There were two focuses of reading behavior interest in each experimental item. Firstly, the study aimed to investigate the time course of processing the ironic statement, compared to a non-ironic baseline. This investigation would suggest whether the participants needed more inferential efforts in order to comprehend an ironic utterance or not. Secondly, the influence of irony on processing the subsequent pronominal reference would suggest which interpretation (literal, ironic, or both) remained active during the on-line irony processing.

The results of the study showed that the participants’ reading times were longer when the statement was intended ironically, which proves that more effort is required in order to process the non-literal utterances. The results coincide with the predictions of both the standard pragmatic view and the graded salience hypothesis. This finding is also compatible with the results of Giora, Fein, and Schwartz’s (1998) Experiment 1 that was conducted with 24 native speakers of Hebrew (the target language in the study). The experiment presented participants with a probe word related to ironic or non-ironic interpretation of a target phrase. The participants’ response times and responses were recorded. The results showed that the participants took longer to read the ironic remarks than to read their literal counterparts. That means more extra efforts (compared to each phrase’s literal counterpart) was required in order to comprehend ironic phrases.

It is also similar to the results of the more recent study of Kaakinen, Olkoniemi, Kinnari, and Hyönä (2013) that examined processing of written irony by recording the
participants’ eye movements while they read target phrases, either ironic or non-ironic. The results showed that the participants took extra time to process ironic phrases in comparison with non-ironic phrases. Moreover, the results also showed that irony affects the probability of rereading the target phrase. That means comprehending ironic utterances is not necessarily complete during the first-pass reading of the target phrase, and is a time-consuming process.

In the case of L2 irony processing, there is also evidence that coincides with the results of Filik and Moxey’s study. According to Bromberek-Dyzman and Rataj’s (2016) study that compared between ways to process ironic and non-ironic statements in both of the participants’ L1 and L2. The results show that the learners had more difficulty in judging ironic statements than literal ones in both L1 and L2. Not only the response times of the participants in ironic-interpretation statements were longer than the times using in literal interpretations, the participants were less accurate in interpreting the non-literal than literal utterances in both languages. That means the processing of irony in nonnative language shares the same pattern as the L1 irony processing.

For pronominal reference processing, the results of Filik and Moxey (2010) illustrate that the participants took longer times in processing complement set reference following a positive quantifier, and took longer times in processing reference set reference following a negative quantifier in a non-ironic condition. While, in ironic conditions, the participants found both sets of reference equally acceptable which illustrates that there was no difference in processing time between reference set and complement set, no matter whether they are followed by the antecedent containing positive or negative quantifier, in the ironic condition. That means the participants had accessed both literal and ironic interpretations during the processing, which corresponds to the assumptions of the graded salience hypothesis.

To summarize, this chapter discusses related literature in order to construct the theoretical framework for the present study. Different irony conceptual theories—the standard pragmatic view, the echoic mention account, and the indirect negation theory—are described alongside the processing theories of irony—the standard pragmatic view (in term of on-line processing), the direct access model, and the graded hypothesis. In the notion of on-line processing, the standard pragmatic view and the
graded hypothesis predict the extra inferential effort to process an ironic statement. These two theories could be distinguished using pronominal reference as an indicator. The direct access view predicts an equivalent processing effort of both ironic and non-ironic statements because contextual information is processed first to determine the following interpretation. For L2 comprehension of irony, it has been proved that there are two more factors involved, which are language proficiency and L2 cultural knowledge, in order for L2 learners to comprehend any ironic statement.

In this study, the three theories of irony concept are distinguished to find what should be emphasized in the L2 instructions of irony by testing the predictions of the above theories of irony processing (the standard pragmatic view, the direct access model, and the graded salience hypothesis). If the results are according to the standard pragmatic view that sees ironic interpretation to always convey the opposite of what one said by the blatant violation of the first maxim of quality (i.e. do not say what you believe to be false), the main focus of the instruction should emphasize on Grice’s model of conversational implicatures. The teaching might be conducted by using the conversational implicatures as tools to explain and discuss the target word, phrase, or statement (Fernández & Fontecha, 2008). However, if the results coincide with the direct access model that leads to the irony understanding in the way of the echoic mention account, contextual cues must be underlined because context information is the crucial element that influences the interpretation of a particular utterance. Thus, the strategy instruction for finding contextual clues could be practiced, if proved to be the most effective kind of instructions to promote students’ ability to infer from context (Walters, 2006). Nevertheless, if the results correspond with the graded salience hypothesis that sees irony as an indirect negation, contexts would not be prior to the instruction. Instead, socio-cultural background knowledge of the target language might be prioritized, as it could help students to understand the salient meaning of a particular word or phrase (Kecskes, 2006). In the next chapter, the methodology and frameworks used for distinguishing the theories in the present research are explained in order to demonstrate the process of conducting the study.
CHAPTER 3
RESEARCH METHODOLOGY

This chapter provides the methodology used in the present study in relation to the research questions defined in Chapter 1. The methodology described is based on Filik and Moxey's (2010) study which aimed to test the predictions of the standard pragmatic view, the direct access model, and the graded salience hypothesis in native English speakers by employing an eye-tracking method to examine the participants’ reading behavior on the target phrases. This current chapter consists of four sections. Firstly, the participants of the study are described in Section 3.1. Secondly, in Section 3.2, the instruments used in the experiment are presented. Next, Section 3.3 explains the research procedure. Last, in Section 3.4, the data analysis procedure is provided.

3.1 PARTICIPANTS

The participants of the present study comprised 36 Thai L2 English speakers who were doing a master’s degree in English Language Teaching (MA-ELT) at Thammasat University. As it is a master’s degree program, the students were of various ages. The frequency, mean, and standard deviation describing age of the participants are presented in Table 3.1.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>24</td>
<td>4</td>
<td>11.1</td>
</tr>
<tr>
<td>25</td>
<td>4</td>
<td>11.1</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>8.3</td>
</tr>
<tr>
<td>27</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>28</td>
<td>5</td>
<td>13.9</td>
</tr>
<tr>
<td>29</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>31</td>
<td>3</td>
<td>8.3</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>2.8</td>
</tr>
</tbody>
</table>
Table 3.1: Age of Participants

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>34</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>36</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>39</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>50</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean 29.97
Std. Deviation 5.833

It was found that the participants of the present study represented various ages. The minimum age of the participants was 23 years old, and the maximum was 50 years old. The average age of the participants was 29.97. That means the participants’ life experiences, their views on life, and the ways they use a language tend to be varied. According to Lightbown and Spada (2013), older L2 speakers are more likely to encounter more complex language and/or more complicated ideas than the younger ones. They also develop more in their metalinguistic knowledge, memory strategies, and problem-solving skills. Thus, this variety of age could provide more perspectives to the data gained from the experiment and interview, as it did not limit the study to a small range of age groups.

As the scope of this study was confined to only Thai L2 English speakers with high competence in English, the participants had scored more than 550 on Thammasat University General English Test (TU-GET) scores. According to the admission requirements of the MA-ELT program, each student is required to take TU-GET in order to confirm that they have got high competence in English. The minimum required score is 550 (out of 1000 points). Thus, as it is a standard tool of measuring English proficiency at Thammasat University, TU-GET was used to investigate the proficiency level of the participants in this study. The reason that only L2 speakers with high proficiency were selected is because the focus of the present study is to highlight the way that L2 English speakers process ironic utterances, not the effect of language proficiency towards irony processing. According to the previous studies (Khawaldeh,
L2 speakers with high language proficiency tend to be more accurate in judging ironic utterances as they already possess the target language’s basic syntax or morphology, and are able to use their knowledge as a tool to analyze the given pragmatic features. Besides, high proficiency speakers have enough lexical knowledge of the target language to understand all the words provided, while speakers with low proficiency might do not know or misunderstand certain key lexical items in an ironic statements that would make them unable to come up with the ironic interpretation. Therefore, this recruiting of only L2 English speakers with high competence in English would ensure on-line irony processing pattern analysis with no interference of the language proficiency factor. The participants’ TU-GET scores are presented in Table 3.2.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TU-GET Scores</td>
<td>36</td>
<td>610</td>
<td>900</td>
<td>703.33</td>
<td>93.167</td>
</tr>
</tbody>
</table>

Table 3.2: TU-GET Scores of Participants

Overall, the average proficiency level of the participants, as seen in Table 3.2, was 703.33 which means that they possessed high competence in English. That means the participants possessed enough lexical knowledge of the target language to understand all the words provided in the experimental items. Even the participants who got the least scores (610 scores) were still in the range of high proficiency level. Thus, it could be said that the participants in this study had enough potential to judge ironic utterances correctly because they could use the target language’s basic syntax or morphology as tools to analyze any given pragmatic features.

Although the participants were all MA-ELT students, it does not mean that they all could second-guess what the current study was after because of their educational background. The participants were from a varied educational background, but all had completed at least a bachelor’s degree. Many of them graduated with a liberal arts degree or an educational degree, from different universities and colleges in Thailand. Some graduated with a law degree, a science degree, and an engineering degree. This
means that not all of them were familiar with theoretical concepts related to English figurative language as the concepts are taught in specific classes of linguistic departments. Besides, most classes teaching English figurative language seem to mainly emphasize metaphor, leaving out irony, as metaphor is considered to be the majority type of figurative language usage that second language learners are expected to know (Ivlampie, 2014; Littlemore & Low, 2006). In short, this variety of backgrounds would benefit the present study because the variety of backgrounds could reduce the bias of using the participants from the same major of studying. The variety of backgrounds means the improbability that the participants would realize what the present study is looking for (i.e. the way of how they process English ironic utterances), which might influence results. The educational background, including their bachelor degree background, master degree background, and doctoral degree background, is presented in Tables 3.3, 3.4, and 3.5.

<table>
<thead>
<tr>
<th>Major</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Major</td>
<td>15</td>
<td>41.7</td>
</tr>
<tr>
<td>Educational Major</td>
<td>8</td>
<td>22.2</td>
</tr>
<tr>
<td>Other Majors</td>
<td>5</td>
<td>13.9</td>
</tr>
<tr>
<td>Science Major</td>
<td>3</td>
<td>8.3</td>
</tr>
<tr>
<td>Other Language Majors</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>Law Major</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>Engineer Major</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>Business Major</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 3.3: Bachelor-Degree Background of Participants
Table 3.3 illustrates the bachelor-degree background of the participants. It was found that the most frequent major the participants acquired was English major (41.7%). A smaller proportion of the participants (22.2% and 13.9%) graduated from educational majors and other majors (e.g. medical major, drama major, and mathematics major), respectively. The rest of the participants graduated from science major (8.3%), other language majors (e.g. French) (5.6%), law major (2.8%), engineering major (2.8%), and business major (2.8%), respectively.

<table>
<thead>
<tr>
<th>Major</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>32</td>
<td>88.9</td>
</tr>
<tr>
<td>Business Major</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>Other Language Major</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>Engineer Major</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 3.4: Master-Degree Background of Participants

A few participants had completed a master’s degree, in a variety of fields, before starting the current study for MA-ELT. Table 3.4 presents the master degree background of the participants. 88.9% of the participants had not completed any master’s degree at the time the study took place. There were only 2 participants (5.6%) who had completed a master’s degree in business major, 1 participant (2.8%) in French major, and another 1 participant (2.8%) in engineering major. Moreover, none of the
participants had completed any doctoral degree as shown in Table 3.5. That means it is unlikely that most of the participants would be acquainted with English irony, because not all of the participants were familiar with theoretical concepts of irony. Besides, it is possible to assume that they would not be familiar with conducting any language processing experiments either, as most of them had not completed a master’s degree (and none of them for doctoral degree) in a linguistic field which would provide them the opportunity to be exposed to this kind of experiment.

3.2 INSTRUMENTS

To collect the data required, the following instruments were used in this study:

3.2.1 Experimental items (Appendix B)

3.2.1.1 Filik and Moxey’s experimental items

64 experimental items from the study of Filik and Moxey (2010) were adapted to use in the present research. All of the items comprise a short passage providing a conversation between two people. Each item consists of 4 sentences. The first sentence provides a context which determines the interpretation of a subsequent sentence to be ironic or non-ironic. The second sentence is a quantified statement in which is contained either a positive (many) or negative (not many) quantifier. The third sentence is a statement containing a plural pronoun (they) that makes a reference to either the reference set or the complement set. Last, the fourth sentence is the additional ending-story sentence. The experiment items consist of 8 main stories, each story comprised of 2 conditions (ironic and non-ironic), 2 quantifiers (positive and negative), and 2 sets of reference (reference set and complement set). The examples of the experimental items are provided in the following table (Filik & Moxey, 2010: 433):

<table>
<thead>
<tr>
<th>Non-ironic</th>
<th>The vineyard owner congratulated the site manager on the high productivity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many</td>
<td>“I see many of your grape pickers are highly motivated”, he exclaimed.</td>
</tr>
<tr>
<td>a Reference set</td>
<td>“They will get [a raise^a/fired^b] if they continue”, explained the manager.</td>
</tr>
</tbody>
</table>
The owner was always paying these little surprise visits.

Ironic

The vineyard owner confronted the site manager about low productivity.

*Many*

<table>
<thead>
<tr>
<th>a Reference set</th>
</tr>
</thead>
<tbody>
<tr>
<td>I see many of your grape pickers are highly motivated”, he exclaimed.</td>
</tr>
<tr>
<td>They will get [a raise/fired] if they continue”, explained the manager.</td>
</tr>
<tr>
<td>The owner was always paying these little surprise visits.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b Complement set</th>
</tr>
</thead>
<tbody>
<tr>
<td>I see not many of your grape pickers are highly motivated”, he exclaimed.</td>
</tr>
<tr>
<td>They will get [a raise/fired] if they continue”, explained the manager.</td>
</tr>
<tr>
<td>The owner was always paying these little surprise visits.</td>
</tr>
</tbody>
</table>

Non-ironic

The vineyard owner confronted the site manager about low productivity.

*Not many*

<table>
<thead>
<tr>
<th>a Reference set</th>
</tr>
</thead>
<tbody>
<tr>
<td>I see not many of your grape pickers are highly motivated”, he exclaimed.</td>
</tr>
<tr>
<td>They will get [a raise/fired] if they continue”, explained the manager.</td>
</tr>
<tr>
<td>The owner was always paying these little surprise visits.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b Complement set</th>
</tr>
</thead>
<tbody>
<tr>
<td>I see not many of your grape pickers are highly motivated”, he exclaimed.</td>
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</tr>
<tr>
<td>The owner was always paying these little surprise visits.</td>
</tr>
</tbody>
</table>

Ironic

The vineyard owner congratulated the site manager on the high productivity.

*Not many*

<table>
<thead>
<tr>
<th>a Reference set</th>
</tr>
</thead>
<tbody>
<tr>
<td>I see not many of your grape pickers are highly motivated”, he exclaimed.</td>
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<td>They will get [a raise/fired] if they continue”, explained the manager.</td>
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<tr>
<td>The owner was always paying these little surprise visits.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b Complement set</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>They will get [a raise/fired] if they continue”, explained the manager.</td>
</tr>
<tr>
<td>The owner was always paying these little surprise visits.</td>
</tr>
</tbody>
</table>

Table 3.6: *Examples of Filik and Moxey’s (2010) Experimental Items*

The 64 experimental items were selected to use in the present study because the items have been validated to be suitable for finding the data needed—time courses of processing ironic and non-ironic statements and the retention of interpretation. Moreover, the items were pre-tested by Filik and Moxey to ensure that participants would correctly interpret those sentences as being ironic or non-ironic in order to eliminate the factor of accuracy, as accuracy of interpreting ironic statement is not the focus of their study (and also of this current study).
The pre-test was conducted with 12 English native speakers who were asked to read the first two sentences of each experimental material (e.g. *The vineyard owner confronted the site manager about low productivity. “I see many of your grape pickers are highly motivated”, he exclaimed*), and then indicate whether the speaker in the story was being ironic or not. In total, each participant judged 12 items in each condition: ironic *many*, non-ironic *many*, ironic *not many*, and non-ironic *not many*. The results suggested that the participants successfully interpreted the materials as they judged the materials correctly over 90% of the time, with no significant differences across the four conditions. Therefore, all the material was clear enough for people to distinguish the different conditions (ironic and non-ironic). That means the accuracy factor could be eliminated.

### 3.2.1.2 Pilot of the experimental items

Before the experiment started, a pilot of the experimental items was carried out in order to authenticate the validity of the chosen items in case of using them in L2 speakers. 12 Thai L2 English speakers (with high competence in English) were chosen as a pilot group. 48 experimental items (first two sentences, 12 main stories) were divided into 4 stimulus lists, with equivalent numbers of items in each of the four conditions—ironic *many*, non-ironic *many*, ironic *not many*, and non-ironic *not many*. That means each stimulus list contained 12 experimental items, and every 4 participants were assigned to the same stimulus list.

The procedure conducted was similar to that of Filik and Moxey’s (2010) irony pre-test. Firstly, each participant was asked to judge the first two sentences of the 12 experimental items, whether the speaker of each item was being ironic, in the created Google Forms. Then, they indicated their responses by selecting one of the provided choices, irony or non-irony, which were placed under each item. Generally, the materials were judged correctly only about 80% of the time, with no significant differences across the four conditions. This result suggests that participants were not relatively successful in interpreting the materials.

In order to alleviate the problem, 4 participants were randomly interviewed on the telephone. All 4 participants stated that some words in the texts led them to interpret the statement as irony, even when the statement was not ironic; for example, the word
mused, as in Aaron pointed at Bob’s crowded inbox. “I see many people have responded to your email”, he mused. They also indicated that some words were too hard as they do not normally use them in their daily life, and it made them confused; for example, the word overrun, as in The market researcher was with her supervisor, and they were overrun with volunteers. “Clearly not many people are interested in helping you”, exclaimed the supervisor.

After the interviews, the words indicated as difficult for the participants were substituted with their easier synonyms, after consultation with the Macmillan English Dictionary for Advance Learners (2006) (See sample of the modifications in Table 3.7). Then, the same procedure of the above pilot study was conducted again with another set of 12 Thai L2 English speakers (with high competence in English). This time, the overall judgment was correct more than 90% of the time (with no significant differences across the four conditions). Therefore, the modified materials were clear enough for L2 English speakers (with high competence in English) to accurately distinguish between different conditions (ironic and non-ironic), which was important as the focus of the present study was on the method of processing and not accuracy.

<table>
<thead>
<tr>
<th>Story No.</th>
<th>Original Experimental Items</th>
<th>Modified Experimental Items</th>
</tr>
</thead>
</table>
| 1         | Alice looked triumphantly at the stack of empty plates after the dinner party. “I see [many/not many] people enjoyed their dinner”, teased Bill.  
Alice looked crestfallen at the huge piles of leftovers after the dinner party. “I see [many/not many] people enjoyed their dinner”, teased Bill.  | Alice looked proudly at the pile of empty plates after the dinner party.  
“I see [many/not many] people enjoyed their dinner”, said Bill.  
Alice looked depressed at the huge piles of leftovers after the dinner party. “I see [many/not many] people enjoyed their dinner”, said Bill.  |
| 2 | The new deal on cheap flights was really drawing people into the travel agency. | The new deal on cheap flights was really drawing people into the travel agency. |
|   | “Obviously [many/not many] people are excited by these offers”, joked Joyce. | “Obviously [many/not many] people are excited by these offers”, said Joyce. |
|   | The new deal on cheap flights was not drawing people into the travel agency. | The new deal on cheap flights was not drawing people into the travel agency. |
|   | “Obviously [many/not many] people are excited by these offers”, joked Joyce. | “Obviously [many/not many] people are excited by these offers”, said Joyce. |
| 3 | Maggie looked at the very long list of volunteers to help with her raffle. | Maggie looked at the very long list of volunteers to help with her charity. |
|   | “Clearly [many/not many] people are willing to give up their spare time”, exclaimed the coordinator. | “Clearly [many/not many] people are willing to give up their spare time”, exclaimed the coordinator. |
|   | Maggie looked at the very short list of volunteers to help with her raffle. | Maggie looked at the very short list of volunteers to help with her charity. |
|   | “Clearly [many/not many] people are willing to give up their spare time”, exclaimed the coordinator. | “Clearly [many/not many] people are willing to give up their spare time”, exclaimed the coordinator. |

Table 3.7: The Samples of Modified Experimental Items

From the 48 modified experimental items, 16 items (4 main stories) were excluded from use in the current study. This was because the participants interpreted
these four stories correctly only about 65% of the time when calculating each main story separately. This result suggested that the participants were not relatively successful in interpreting these two stories, thus the items should be eliminated. As a result, the experimental items used in this study were 32 items, comprised of 8 ironic many, 8 non-ironic many, 8 ironic not many, and 8 non-ironic not many. Accordingly, by adding 2 sets of reference (reference set and complement set) to each item, the total number of the experimental items was 64 items: 8 ironic many with reference set, 8 non-ironic many with reference set, 8 ironic not many with reference set, 8 non-ironic not many with reference set, 8 ironic many with complement set, 8 non-ironic many with complement set, 8 ironic not many with complement set, and 8 non-ironic not many with complement set.

3.2.1.3 Regions

Each experimental item was divided into 8 regions in order to distinguish time courses of each region which had different significant from each other. The distinctions were constructed to aid subsequent fixation analyses. The regions are underlined as the following:

The vineyard owner confronted the cite manager about low productivity.  
1| “I see many 2| of your grape pickers are highly motivated”, 3| he exclaimed. 4| “They 5| will get fired if they continue”, 6| explained the manager. 7| The owner was always paying these little surprise visits. 8|

Region 1 is the sentence that provides a context determining the interpretation of the subsequent sentence to be ironic or non-ironic. Region 2 is the beginning of the quantified statement, up to the target quantifier. Region 3 is the predicate phrase of the quantifier. Region 4 indicates the speaker of the quantified statement. Region 5 is the beginning of the sentence containing the pronominal reference. Region 6 is the disambiguation of the pronominal reference to be either reference set or complement set. Region 7 indicates the speaker of the pronominal statement. And Region 8 contains the final sentence.
However, only the data from Regions 2, 3, 4, 6, and 7 were analyzed as they are the significant regions that would indicate both irony and pronominal reference processing. Investigating reading behavior on the Regions 2, 3, and 4 would offer more assessment of the time courses of the on-line irony processing, when compared to each statement’s non-ironic counterpart. At Region 2, it would indicate the participants’ behavior of re-reading the sentence from the beginning in ironic conditions. Such behavior would suggest whether the difficulty (if any) caused by irony is widespread or not. Region 3 contains the ironic statement. And Region 4, which indicates the speaker of the ironic utterance, directs the widespread of disruption of irony as same as Region 2.

If the processing of ironic utterances of the participants coincides with the direct access model, there would be no significant difference in processing both ironic and non-ironic statements. However, according to the standard pragmatic view and the graded salience hypothesis, processing of ironic utterance should take extra time, as both theories predict that extra inferential effort is needed for interpreting irony (compared to non-ironic counterpart).

To distinguish between the standard pragmatic view and the graded salience hypothesis, the data from Regions 6 and 7 were analyzed to investigate the interpretation retention when processing an ironic statement. If the reference set reference is easier to process than the complement set reference when following an antecedent statement containing a negative quantifier in an ironic circumstance, it means that literal interpretation is suppressed and only ironic interpretation remains active. This would accord to the standard pragmatic view that predicts the literal interpretation suppression in an ironic condition. This result would also support the prediction of the direct access model, as the ironic interpretation should be the only interpretation that is retained in this view. However, if the time used is equivalent to process reference set reference and complement set reference when following either an antecedent statement containing a negative or positive quantifier in an ironic circumstance, it means that both literal and ironic interpretation are retained. This latter result would support the prediction of the graded salience hypothesis.
3.2.2 Eye-tracker

In order to investigate Thai L2 English speakers’ on-line processing of English irony and the retention of interpretation, reading time courses of the experimental items were sampled using an eye-tracking method. Although there is a variety of methodologies that one could use to examine the time courses of irony processing (e.g. probe word, word-by-word reading time, and whole sentence reading time), they contain a number of potential drawbacks. These tasks do not present the target texts in the naturalistic manner in which they normally present the texts word-by-word, phrase-by-phrase, or sentence-by-sentence. That means the participants’ natural reading behavior would not be illustrated as they are unable to look back or re-inspect earlier portions of the text which is common in normal reading (Hyönä & Nurminen, 2006). In the case whole text reading time is measured, it does not allow precise analysis of which processing difficulty is experienced. Thus, the current study employed an eye-tracking method that is the technique of studying the visual attention of individuals which allows the participants to read as they would normally, and also provides a set of in-detail data of the participants’ fixations while reading the experimental items.

In this study, the participants’ eye movements were recorded via a Tobii EyeX controller which is an eye tracking device that allows moderately free head movements. The device provides the minimum and maximum distances between a user’s eyes and the device which are 450 and 800 mm. respectively. It uses a near-infrared illumination technology to create the reflection patterns on the cornea and pupil of the eye of the participant. It returns a real-time estimate of the left and right eye gaze positions on the screen. The number of data samples per second collected for each eye from this device, called the sampling rate, is at the rate of 60 Hz (Gibaldi, Vanegas, Bex, & Maiello, 2017).

3.2.3 Interview

As the participants’ L1 schema of what is counted as irony might affect their way of processing L2 irony, conducting an interview was a plausible technique that could elaborate the participants’ perspective towards English irony. To explore the aspects of what the participants understand as an irony, a semi-structured interview was conducted. There were 2 main questions provided in the interview. The first question
was about their opinion of what is irony. Then, the interviewees were asked if they think Thai irony and English irony are the same or different. The participants were expected to elaborate their answer in both questions. As all the participants were not native English speakers, they were interviewed in their first language, which is Thai, to ensure that they really understood the questions and could answer those questions without any language barriers.

### 3.3 Procedure

In the present study’s experiment, all 64 items were divided into eight stimulus lists, with equal numbers of items in each of the eight conditions—ironic *many* with reference set, non-ironic *many* with reference set, ironic *not many* with reference set, non-ironic *not many* with reference set, ironic *many* with complement set, non-ironic *many* with complement set, ironic *not many* with complement set, and non-ironic *not many* with complement set. Each list also contained 5 additional filler items which were in a similar form to the experimental items—two characters having a conversation—but there was no quantified expressions included in the filler items. Moreover, before each experiment started, there was a practice trial for the participants to run-through what they were going to do in the actual experiment, in the case that they might not clearly understand the pattern of the experiment from verbal explanation. That means, in each trial, each participant had to analyze 14 items (1 practice item, 8 experimental items and 5 filler items) in total.

The participants were randomly tested one by one in a private room using the eye-tracker and a laptop to record their eye movements. Before the experiment started, the procedure of the experiment was explained, and each participant was instructed to read each experimental item at their own pace for comprehension. Then, the eye tracker was calibrated. Once a participant completed reading each item, they clicked a *finish* key to go to the next item. However, after they clicked a key to go next, returning to the previous item was not possible.

The participants were instructed to read all the items on the screen at their own pace for comprehension. In order to ensure that the participants were reading for comprehension, there were true-or-false questions randomly displayed after the experimental items. Each question was a question related to each main story.
After all of the participants finished the experiment, the obtained data was later statistically analyzed to find the mean time course of separated regions. As the final part of the study, five participants were randomly interviewed to elaborate what they understand as an irony. The experimental session lasted approximately for 15 minutes. The interview session lasted approximately for 30 minutes.

3.4 DATA ANALYSIS

The total reading times from two measures of reading behavior—first pass reading time and regression path reading time—from each significant region were reported. The first pass reading time is the sum of the fixations within a region that provides a measure of initial text processing, while the regression path reading time is the sum of the fixations made to re-inspect the same text after one already passed the end of particular region once.

The Paired Samples T-Tests were used in order to find the differences between 2 conditions (ironic vs. non-ironic) and 2 sets of reference (reference set and complement set) towards 2 quantifiers (positive and negative) in each condition. The test was also used to determine if the differences between those variables are significant.

To summarize, this chapter describes the methodology used in examining the time courses of both ironic and non-ironic passages. There were 8 main stories, based on Filik and Moxey (2010), that were used in this study. Each story consisted of 2 conditions (ironic and non-ironic), 2 quantifiers (positive and negative), and 2 sets of reference (reference set and complement set), which resulted in the total of 64 experimental items. Each item was divided into 8 regions to aid subsequent fixation analyses, of which only Regions 2, 3, 4, 6, and 7 were analyzed. The first pass reading time and regression path reading time were combined to be the total reading times for each region. Then the total reading times of each region were analyzed to find significant differences using Paired Samples T-Tests. As the final part of the study, five participants were randomly interviewed in order to explore their perspective of what they understand as an irony, as the participants’ L1 schema of what is counted as irony might affect their way of processing L2 irony.
CHAPTER 4
RESULTS AND DISCUSSION

Thus far, the previous three chapters explained the background information of this present study. The first chapter describes the overall details of the study, including objectives, research questions, scope, significance, some limitations, and definitions of terms. Chapter 2 reviews the literature related to irony processing, including conceptual theories, processing theories, pronominal reference processing, irony comprehension in L2, Thai irony, and relevant previous studies. Chapter 3 provides the methodology used for constructing the present study, including the information of the participants, the instruments used in the experiment, research procedure, and data analysis procedure. This current chapter provides the results and discussion of the present study. It begins with the results from the experiment and interviews in Section 4.1. The section is divided into 3 sub-sections. In Section 4.1.1, the findings of true-or-false test scores, which is a part of the experiment, are defined. The findings of separate regions of the experimental items are presented in Section 4.1.2. Last, the findings of the interviews are presented in Section 4.1.3. Then, Section 4.2 of this chapter provides the discussion of the results according to the research questions of the study stated in Chapter 1.

4.1 RESULTS

This section provides the results of the experiment and interviews described in the previous chapter. The results are divided into 3 major details: true-or-false test scores (Section 4.1.1), the results of each significant region of experimental items (Section 4.1.2), and the findings from the interviews (Section 4.1.3).

4.1.1 True-or-false test scores

The present study investigated the participants’ on-line processing of English irony and the retention of interpretation using an eye-tracking method with 64 experimental items which were adapted from Filik and Moxey (2010). The 64 items were divided into eight stimulus lists, with equal numbers of items in each of the eight conditions—ironic many with reference set, non-ironic many with reference set, ironic
not many with reference set, non-ironic not many with reference set, ironic many with complement set, non-ironic many with complement set, ironic not many with complement set, and non-ironic not many with complement set. Each list also contained 5 additional filler items which were in a similar form to the experimental items—two characters having a conversation—but there was no quantified expressions included in the filler items. That means, in each experimental trial, each participant had to analyze 13 items (8 experimental items and 5 filler items) in total. The participants were instructed to read all the items on the screen at their own pace for comprehension. In order to ensure that the participants were reading for comprehension, there were true-or-false questions randomly displayed after the experimental items. The existing questions for each trial were calculated to be 50% of the total experimental items (4 out of 8). The results of the true-or-false test scores are presented in Table 4.1.

<table>
<thead>
<tr>
<th>True-or-False Test Scores</th>
<th>N</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct</td>
<td>36</td>
<td>122</td>
<td>84.7</td>
</tr>
<tr>
<td>Incorrect</td>
<td>36</td>
<td>22</td>
<td>15.3</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>144</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.1: True-or-False Test Scores of Participants

Generally, the participants answered the true-or-false questions correctly 84.7% of the time. This result suggests that the participants succeeded relatively well in understanding the information of the experimental items. Thus, the reading times collected from the experiment were from the participants’ natural behavior in reading something for comprehension. Therefore, the reading time data gained from the experiment was reliable enough to study the participants’ reading patterns.

In the next sub-section, the statistical data of the participants’ reading times of the experimental items are described in order to detect any significant difference in processing between ironic and non-ironic expressions.
4.1.2 Regions

The adapted 64 experimental items were short passages providing a conversation between two people. Each item consisted of 4 sentences. The first sentence provide a context determining the interpretation of the subsequent sentence to be ironic or non-ironic. The second sentence was a quantified statement which contained either a positive (many) or a negative (not many) quantifier. The third sentence was a statement containing a plural pronoun (they) that makes a reference to either the reference set or the complement set. Last, the fourth sentence was the additional ending-story sentence. The experiment items consisted of 8 main stories, each story comprised of 2 conditions (ironic and non-ironic), 2 quantifiers (positive and negative), and 2 sets of reference (reference set and complement set). The examples of the experimental items are presented in Table 4.2.

<table>
<thead>
<tr>
<th></th>
<th>Non-ironic many</th>
<th>Ironic many</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a Reference set</td>
<td>a Reference set</td>
</tr>
<tr>
<td>Non-ironic</td>
<td>The activity hall was full of enthusiastic people. “It looks like many people are taking their fitness seriously”, said Joan. “They will be [thankful when they get fitter(^a)/sorry when they get fatter(^b)]”, replied the instructor. He had a firm belief that exercise is very important.</td>
<td></td>
</tr>
<tr>
<td>Ironic</td>
<td>The activity hall was pretty empty. “It looks like many people are taking their fitness seriously”, said Joan. “They will be [thankful when they get fitter(^a)/sorry when they get fatter(^b)]”, replied the instructor. He had a firm belief that exercise is very important.</td>
<td></td>
</tr>
<tr>
<td>Non-ironic</td>
<td>a Complement set</td>
<td>b Complement set</td>
</tr>
<tr>
<td>not many</td>
<td>The activity hall was pretty empty. “It looks like not many people are taking their fitness seriously”, said Joan. “They will be [thankful when they get fitter(^a)/sorry when they get fatter(^b)]”, replied the instructor. He had a firm belief that exercise is very important.</td>
<td></td>
</tr>
</tbody>
</table>
Ironic not many

| a Reference set | The activity hall was full of enthusiastic people. “It looks like not many people are taking their fitness seriously”, said Joan. “They will be [thankful when they get fitter\textsuperscript{a}/sorry when they get fatter\textsuperscript{b}]”, replied the instructor. He had a firm belief that exercise is very important. |
| b Complement set |

Table 4.2: Examples of Experimental Items

Each experimental item was divided into 8 regions in order to distinguish the time course of each region. It is because each region has different significance from each other. The distinctions were constructed to aid subsequent fixation analyses. The regions are identified as the following:

The activity hall was pretty empty. 1| “It looks like many 2| people are taking their fitness seriously”, 3| said Joan. 4| “They 5| will be sorry when they get fatter”, 6| replied the instructor. 7| He had a firm belief that exercise is very important. 8|

Region 1 is the sentence that provides a context determining the interpretation of the subsequent sentence to be ironic or non-ironic. Region 2 is the beginning of the quantified statement, up to the target quantifier. Region 3 is the predicate phrase of the quantifier. Region 4 indicates the speaker of the quantified statement. Region 5 is the beginning of the sentence containing the pronominal reference. Region 6 is the disambiguation of the pronominal reference to be either reference set or complement set. Region 7 indicates the speaker of the pronominal statement. And Region 8 contains the final sentence.

However, not all of the regions in each item was accounted for in the reading time analysis. Only the data from Regions 2, 3, 4, 6, and 7 were analyzed as they were the significant regions that would indicate both irony and pronominal reference processing. This sub-section presents the results of total reading times of those significant regions. The Paired Samples T-Tests were used in order to find the differences between 2 conditions (ironic vs. non-ironic) and 2 sets of reference
(reference set and complement set) towards 2 quantifiers (positive and negative) in each condition. The test was also used to determine if the differences between those variables were significant.

Prior to the analysis, the fixations under 40 milliseconds (ms) were eliminated from the analysis, as were the fixations over 12000 ms, because they indicated that participants failed to read the sentence or there had been tracker loss. These eliminations accounted for 1.3% of the data.

4.1.2.1 Region 2

Region 2 is the beginning of the quantified statements, up to the target quantifier. The region is underlined as follow:

The activity hall was pretty empty. 1| “It looks like many 2| people are taking their fitness seriously”, 3| said Joan. 4| “They 5| will be sorry when they get fatter”, 6| replied the instructor. 7| He had a firm belief that exercise is very important. 8|

This region indicates the participants’ behavior of re-reading the sentence from the beginning in ironic conditions. Total reading times would indicate whether irony affects reading behavior of the participants or not. For example, the greater amount of reading times for the ironic condition would indicate that the participants had more difficulty in processing ironic utterances, and they had to re-read the sentence from the beginning again to search for more clarification. The total reading times of this region are presented in Table 4.3.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-ironic</td>
<td>2.1159</td>
<td>36</td>
<td>1.37743</td>
<td>-.629</td>
<td>35</td>
<td>.534</td>
</tr>
<tr>
<td>Ironic</td>
<td>2.1978</td>
<td>36</td>
<td>1.08997</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3: Total Reading Times at Region 2
According to Table 4.3, the total reading times were generally longer for the ironic condition (M = 2.1978, SD = 1.08997) than the non-ironic condition (M = 2.1159, SD = 1.37743). However, the differences between the 2 conditions did not reach significance (t(35) = -.629, p > .05). That means irony did not affect the behavior of re-reading the sentences from the beginning. The same amount of time indicated the same way of reading behavior of the participants in both ironic and non-ironic conditions.

4.1.2.2 Region 3

Region 3 is the predicate phrase of the quantifier which contained the ironic statement. The region is underlined as follow:

The activity hall was pretty empty. 1| “It looks like many 2| people are taking their fitness seriously”, 3| said Joan. 4| “They 5| will be sorry when they get fatter”, 6| replied the instructor. 7| He had a firm belief that exercise is very important. 8|

The total reading times of this region would indicate whether the participants had any difficulty in processing ironic utterances, compared to their literal counterparts. The total reading times of this region are presented in Table 4.4.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-ironic</td>
<td>4.8215</td>
<td>36</td>
<td>2.36462</td>
<td>-.125</td>
<td>35</td>
<td>.901</td>
</tr>
<tr>
<td>Ironic</td>
<td>4.8551</td>
<td>36</td>
<td>1.89261</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4: Total Reading Times at Region 3

Similarly to the findings of Region 2, the total reading times of this region in the ironic condition (M = 4.8551, SD = 1.89261) were slightly longer than the non-ironic condition (M = 4.8215, SD = 2.36462). However, the differences between the
two conditions, again, did not reach significance (t(35) = -.125, p > .05). That means the participants processed ironic utterances in the same way they did non-ironic utterances because both ironic items and their non-ironic counterparts were processed with equivalent processing difficulty.

4.1.2.3 Region 4

Region 4 indicates the speaker of the quantified statement. The region is underlined as follow:

The activity hall was pretty empty. 1| “It looks like many 2| people are taking their fitness seriously”, 3| said Joan. 4| “They 5| will be sorry when they get fatter”, 6| replied the instructor. 7| He had a firm belief that exercise is very important. 8|

This region, the same as for Region 2, directs the widespread of disruption of irony. It means that this region would indicate the effect of irony towards processing any statement. The re-reading behavior would be notified if the greater total reading times are found. The total reading times of this region are presented in Table 4.5.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-ironic</td>
<td>1.4342</td>
<td>36</td>
<td>.68045</td>
<td>-.946</td>
<td>35</td>
<td>.351</td>
</tr>
<tr>
<td>Ironic</td>
<td>1.5439</td>
<td>36</td>
<td>.66355</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.5: Total Reading Times at Region 4

Again, the total reading times of this region in the ironic condition (M = 1.5439, SD = .66355) were generally longer than for the non-ironic condition (M = 1.4342, SD = .68045), but they were not significantly different (t(35) = -.946, p > .05), the same result as for Regions 2 and 3. This result showed that irony did not affect the behavior
of re-reading the sentences at the end. The same amount of time indicated the same way of reading behavior of the participants in both ironic and non-ironic conditions.

4.1.2.4 Region 6

Region 6 is the disambiguation of the pronominal reference to be either reference set or complement set. The region is underlined as follows:

The activity hall was pretty empty. 1| “It looks like many 2| people are taking their fitness seriously”, 3| said Joan. 4| “They 5| will be sorry when they get fatter”, 6| replied the instructor. 7| He had a firm belief that exercise is very important. 8|

This region indicates the interpretation retention when processing an ironic statement. When following a negative quantified statement in an ironic circumstance, if a reference set phrase is processed using less amount of reading time than its complement set counterpart, it means that literal interpretation is suppressed and only ironic interpretation remains active. For example, if the total reading time of the complement set reference phrase will be sorry when they get fatter that is following the positive quantified antecedent many people in an ironic condition (as in the example above) was less than the total reading time of reference set reference thankful when they get fitter (see Table 4.2 or Appendix B) that is following the same antecedent in the same condition, it means that only ironic interpretation was retained in the ironic circumstance. However, if it is equivalent to processing reference set reference and complement set reference when following either antecedent statement that contains a negative or positive quantifier in an ironic circumstance, it means that both literal and ironic interpretations are retained.

For this region, the total reading times of the 4 sets of data were calculated separately in order to specify whether the processing of pronominal references, with different quantified antecedents, differed in an ironic circumstance or not. The 4 sets of data are comprised of positive quantifier × 2 sets of references (reference set and complement set) in non-ironic circumstance, positive quantifier × 2 sets of references
(reference set and complement set) in ironic circumstance, negative quantifier × 2 sets of references (reference set and complement set) in non-ironic circumstance, and negative quantifier × 2 sets of references (reference set and complement set) in ironic circumstance. The results of the total reading times, in each set of data, are presented in Table 4.6.

<table>
<thead>
<tr>
<th>Set</th>
<th>Condition</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-ironic × Many × Ref set</td>
<td>3.07614</td>
<td>36</td>
<td>1.728927</td>
<td>-2.291</td>
<td>35</td>
<td>.028</td>
</tr>
<tr>
<td></td>
<td>Non-ironic × Many × Comp set</td>
<td>4.04038</td>
<td>36</td>
<td>2.486920</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ironic × Many × Ref set</td>
<td>3.93799</td>
<td>35</td>
<td>2.180354</td>
<td>2.485</td>
<td>34</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td>Ironic × Many × Comp set</td>
<td>2.85224</td>
<td>35</td>
<td>2.132943</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Non-ironic × Not Many × Ref set</td>
<td>3.86193</td>
<td>36</td>
<td>2.160019</td>
<td>3.597</td>
<td>35</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Non-ironic × Not Many × Comp set</td>
<td>2.46333</td>
<td>36</td>
<td>1.723601</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Ironic × Not Many × Ref set</td>
<td>2.59482</td>
<td>36</td>
<td>1.652268</td>
<td>3.776</td>
<td>35</td>
<td>.001</td>
</tr>
</tbody>
</table>
For non-ironic sentences, there was a significant interaction of quantified antecedent × pronominal reference, as shown in Sets 1 and 3 in Table 4.6. There were significantly longer reading times (t(35) = -2.291, p < .05) for complement set sentences (M = 4.04038, SD = 2.486920) than reference set sentences (M = 3.07614, SD = 1.728927) that follow a positive quantified antecedent. On the contrary, following a negative quantified antecedent, there were significantly longer reading times (t(35) = 3.597, p = .001) for reference set sentences (M = 3.86193, SD = 2.160019) than for complement set sentences (M = 2.46333, SD = 1.723601). It means that reference set references were easier to process when following a positive quantified antecedent, while complement set references were easier to process when following a negative quantified antecedent.

The results for non-ironic circumstances at Region 6 were completely opposite to the results of ironic conditions, even though there was also a significant interaction of quantified antecedent × pronominal reference, as shown in Sets 2 and 4 in Table 4.6. In ironic contexts, there were significantly longer reading times (t(34) = 2.485, p < .05) for reference set sentences (M = 3.93799, SD = 2.180354) than for complement set sentences (M = 2.85224, SD = 2.132943) that followed a positive quantified antecedent. Conversely, there were significantly longer reading times (t(35) = 3.776, p = .001) for complement set sentences (M = 3.71317, SD = 2.353638) than for reference set sentences (M = 2.59482, SD = 1.652268) that followed a negative quantified antecedent. That means a reversed pattern, from literal condition, of pronominal reference towards the antecedent quantifier occurs in ironic circumstances. The participants processed reference set reference easier than complement set reference when the antecedent statement contained a negative quantifier, and vice versa if the antecedent statement contained a positive quantifier.

<table>
<thead>
<tr>
<th>Ironic × Not Many × Comp set</th>
<th>3.71317</th>
<th>36</th>
<th>2.353638</th>
</tr>
</thead>
</table>

Table 4.6: Total Reading Times at Region 6
4.1.2.5 Region 7

Region 7 indicates the speaker of the pronominal statement. The region is underlined as follow:

The activity hall was pretty empty. 1| “It looks like many 2| people are taking their fitness seriously”, 3| said Joan. 4| “They 5| will be sorry when they get fatter”, 6| replied the instructor. 7| He had a firm belief that exercise is very important. 8|

This region directs the widespread of disruption of irony towards pronominal reference processing. Similar to the previous region, the total reading times of 4 sets of data were calculated separately. The total reading times of this region are presented in Table 4.7.

<table>
<thead>
<tr>
<th>Set</th>
<th>Condition</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-ironic × Many × Ref set</td>
<td>1.02716</td>
<td>32</td>
<td>.686877</td>
<td>-1.819</td>
<td>31</td>
<td>.079</td>
</tr>
<tr>
<td></td>
<td>Non-ironic × Many × Comp set</td>
<td>1.36005</td>
<td>32</td>
<td>1.014398</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ironic × Many × Ref set</td>
<td>1.30227</td>
<td>32</td>
<td>.770055</td>
<td>.062</td>
<td>31</td>
<td>.951</td>
</tr>
<tr>
<td></td>
<td>Ironic × Many × Comp set</td>
<td>1.28938</td>
<td>32</td>
<td>.984432</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Non-ironic × Not Many × Ref set</td>
<td>1.30899</td>
<td>34</td>
<td>.819578</td>
<td>1.952</td>
<td>33</td>
<td>.059</td>
</tr>
</tbody>
</table>
The findings of the total reading times at Region 7 in both non-ironic and ironic circumstances showed that there was no significant widespread disruption while processing pronominal reference sentences. In the case of the non-ironic context, following a positive quantified antecedent, there were slightly longer reading times for the complement set condition ($M = 1.36005$, $SD = 1.014398$) than for the reference set condition ($M = 1.02716$, $SD = .686877$), but the difference did not reach significance ($t(31) = -1.819$, $p > .05$). In the case of following a negative quantified antecedent in a non-ironic circumstance, there were slightly longer reading times for reference set conditions ($M = 1.30899$, $SD = .819578$) than for complement set condition ($M = .99034$, $SD = .702521$), but the difference also did not reach significance ($t(33) = 1.952$, $p > .05$).

In the case of ironic context, there were slightly longer reading times for a reference set condition ($M = 1.30227$, $SD = .770055$) than for a complement set condition ($M = 1.28938$, $SD = .984432$) that followed a positive quantified antecedent. The difference also did not reach significance ($t(31) = .062$, $p > .05$). Also, following a negative quantified antecedent, there were slightly longer reading times for the reference set condition ($M = 1.51392$, $SD = .768739$) than the complement set condition ($M = 1.13651$, $SD = 1.523065$). This difference also did not reach significance ($t(33) = 1.498$, $p > .05$).

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-ironic × Not Many × Comp set</td>
<td>.99034</td>
<td>34</td>
<td>.702521</td>
<td></td>
</tr>
<tr>
<td>Ironic × Not Many × Ref set</td>
<td>1.51392</td>
<td>34</td>
<td>.768739</td>
<td>1.498</td>
</tr>
<tr>
<td>Ironic × Not Many × Comp set</td>
<td>1.13651</td>
<td>34</td>
<td>1.523065</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.7: Total Reading Times at Region 7
The results from both conditions in this region indicated that irony did not affect the behavior in terms of re-reading the ending of subsequent sentences. The participants’ reading behavior in reading ironic and non-ironic statements were the same and resulted in the same amount of total reading time used to process statements in both conditions.

In conclusion, the participants processed ironic utterances in the same way they did when processing non-ironic utterances, resulting in insignificant difference of total reading times in Regions 2, 3, and 4. Moreover, when they processed expressions in an ironic condition, only the ironic interpretation of the statements remained active, which resulted in a significant interaction of quantified antecedent $\times$ pronominal reference in Region 6. Irony also did not affect the reading behavior of the subsequent statement, as shown in the results of Region 7 that indicated equivalent times used in processing the target phrases in both conditions. The next sub-section provides the data from interviewing 5 participants to find out their perspectives towards irony.

4.1.3 Interviews

Semi-structured interviews of 5 interviewees were conducted in order to explore the aspects of what the participants understand as an irony. There were 2 main questions provided in the interviews. The first question was about their opinion of what irony is. The answers of this question would provide the fundamentals of what is counted as irony in the participants’ opinions. Then, the interviewees were asked if they think Thai irony and English irony are the same or different. The answers of this question would indicate if there is any cultural-specific factor contained in Thai language that might affect English irony comprehension of Thai L2 English speakers. In this sub-section, the findings from the interviews are presented according to those main questions as follows.

4.1.3.1 What is verbal irony?

All of the 5 interviewees stated that irony is a kind of language a speaker uses in order to indirectly mean something opposite of what is said. Irony, in their views, is resembling a sarcasm because both kinds of language offer an opposite interpretation of the speaker’s direct statement for communicating a particular attitude of the speaker.
However, an interviewee indicated that irony is not exactly the same as sarcasm. The interviewee stated, ‘The term ‘irony’ seems more general. I think when we use irony, sometimes, we do not even need any interlocutor there. We can state something contradicted to the real situation to ourselves just for making the situation less stressful. But when it comes to sarcasm, we use sarcasm to introduce some specific attitudes, mostly negative ones, towards someone in particular. Thus we always need at least an interlocutor to use sarcasm with” (Interviewee 3, female).

Verbal irony was considered, by the interviewees, to be a language that mostly use for negative intentions. An interviewee stated, “I always use irony when I want my listener to know that I am not in the mood or to complain to them about something that they did that I see it was wrong. For example, I used to say ‘Be like that, like forever!’ to my girlfriend when she was mad at me and did not talk to me for quite sometimes. I did not really want her to ignore me forever. I just wanted her to know that I was mad, too” (Interviewee 4, male). Another interviewee said that irony is also used to increase the intenseness of statements, or to show that the speaker is extremely serious. She stated, “Irony can make words more intense. Sometimes that a listener did not really listen to what a speaker said, irony could draw his or her attention. Irony could make the listener to realize that the speaker means it this time, and kind of upset with the listener already” (Interviewee 1, female).

Beside the purpose of showing negative attitudes, the interviewees also indicated another purpose of using irony—to be humorous. An interviewee stated, “Sometimes, when I want to insult someone but I am not that serious, I use irony and make it, kind of, a joke. For example, one time, my friend was late for our meeting. I said to her when she arrived, ‘Why don’t you come tomorrow?’ I was not really mad at her. I knew she already felt bad that she was late. So I tried to make her feel a little bit better by making fun of the situation, by using irony” (Interviewee 2, male). Another interviewee stated, “I always use irony to make fun with my friends. I use it to make fun of other people, my friends, and even myself. They are just harmless jokes, like, saying ‘What a gorgeous way to wear a make-up!’ to a friend about a stranger who clearly put make-up too much” (Interviewee 3, female).

All 5 interviewees unanimously agreed that irony is used only with people who are close to them. It would seem inappropriate, in their opinions, to use irony with
someone older or someone who they are not closely acquainted with. An interviewee stated, “I see irony is more like a passive aggressive language. It is true that we use irony in order to be indirect when we want to insult someone. Still, it is not polite enough to use with someone we do not know well. I would not have used it with someone older than me neither. It is inappropriate” (Interviewee 1, female).

In their opinions, contexts were needed for them to judge whether a statement was ironic or not, as an interviewee stated “If the provided context is obvious enough for me, I can detect that the statement is ironic immediately” (Interviewee 5, female). Another interviewee stated, “I definitely need to know some background knowledge of the situation or characteristics of the speaker in order to pin point that a statement is irony” (Interviewee 2, male). However, one of the interviewee identified that context of the situation alone might not be enough to indicate irony. She said that the speaker’s tone of voice and facial expression must be included. She stated, “I am not sure that I could definitely recognize ironic statement, even there is a clue that the reality is not the same as what the speaker said. The speaker might have genuinely misunderstood the situation. ... But if I hear his tone of voice or see his facial expression, I would know for sure” (Interviewee 1, female). One of the interviewee agreed that tone of voice, body language, and facial expression of the speaker could help him detect irony, if there is no any context provided. He stated, “Context is indeed important for distinguishing irony from literal statements. But if there is none of that provided, the speaker’s tone of voice or body language or facial expression might be other tools that help indicate irony” (Interviewee 4, male).

To conclude, a verbal irony in the interviewees’ opinions is a language utterance that a speaker uses to indirectly mean something opposite from what s/he said explicitly. The language is used in order to communicate some particular attitudes, mostly negative ones, towards the speaker’s interlocutor, other people, or the speaker him/herself. However, people that the speaker uses irony with must be relatively closed to the speaker, otherwise it would seem inappropriate. Another purpose in using irony, for the interviewees, is for humor, as they also use irony to make fun of people or situations. Moreover, the interviewees considered context as an essential element in comprehending irony, alongside awareness of the speakers’ tone of voice, body language, and facial expression.
4.1.3.2 Are Thai irony and English irony same or different?

For all interviewees, there were some parts of Thai irony that are not the same as English irony because of cultural differences. Many of them said that English native speakers are more straightforward than Thai people. English native speakers, in their views, are likely to express something directly to their interlocutors, instead of using indirect language. Therefore, there might be more various ways to produce irony in Thai than English. One interviewee did not even know before that there is irony in English. She stated, “I just realized that there is also irony in English. I never heard my English native friends use it before. Or, I might not recognize it. … I always thought that they are kind of straightforward and always say something directly” (Interviewee 1, female).

Beside different characteristics between Thai people and English native speakers, one interviewee also indicated that there might be some cultural specific terms that make Thai irony and English irony different from each other. The interviewee stated, “People in different cultures have different specific non-literal words that describe the same things; for example, the use of names of famous people in their culture to describe some specific characteristics. … Thai people could understand immediately, when someone said ‘Beautiful! Like Chompoo Araya (a famous actress) in the flesh!’ to a plain-looking girl, that the statement is ironic. While English native speakers might be confused as they do not know who is Chompoo Araya” (Interviewee 4, male).

In the case of the language itself, many interviewees indicated that irony in English seems to be more polite than Thai irony. It is because Thai language has various choices of a word that could be used with different situations or people in different positions, and irony in Thai usually occurs with words that are considered to be impolite. One interviewee stated, “Irony in Thai seems to be more hurtful or more impolite than the English one. … Some impolite words, like the word khôd (very), usually be used in Thai irony. It likes this kind of words could emphasize that this statement is irony. So it might make Thai irony seem to be more impolite. … Instead, in English, the words used for irony are the same as everyday language. And, I do not think that English words have hierarchy of politeness like Thai words do” (Interviewee 5, female). Moreover, the same interviewee also indicated that there are some signal
words in Thai that could guide her to see that a statement is ironic, even when there is no context provided; for example, the word mĚE (an exclamation for surprise).

To conclude, there are some features of Thai irony that the interviewees considered to be different from English one. The interviewees viewed Thai irony to have more various forms than English irony. They thought that the straightforward characteristic of English native speakers might cause them to produce less indirect language. Moreover, some cultural-specific terms (e.g. names of famous people in a country) might cause the differences between Thai and English irony, as some expressions would seem to be irony in one language but not for the another when using these kind of terms. The interviewees also considered Thai irony to be more impolite than English version. Last, the interviewees agreed that some words in Thai could guide the listener to understand that a statement is ironic, even where there is no any context provided; for example, the word mĚE (an exclamation for surprise).

4.2 DISCUSSION

The discussion of the results is presented in accordance with the research questions, mentioned in Chapter 1. The questions are recapped here for convenience as following:

1. Based on the standard pragmatic view, the direct access model, and the graded salience hypothesis, how do Thai L2 English speakers process English ironic utterances during on-line processing of English irony?
2. To what extent is Thai L2 English speakers’ retention of interpretation in processing of subsequent statement identified?

Two major points of processing are discussed in order to answer the research questions: the processing of quantified phrase and the processing of pronominal reference. The discussion of these two processing patterns would indicate the most compatible irony processing theory of Thai L2 English speakers.

4.2.1 Processing of quantified phrase

To scrutinize the on-line irony processing of the participants, the quantified statements of the experimental items were analyzed. As discussed in Chapter 3, the
sentence containing a quantified antecedent could be divided into 3 regions: Regions 2, 3, and 4. Region 2 is the beginning of the quantified statement, up to the target quantifier. Region 3 is the predicate phrase of the quantifier. Region 4 indicates the speaker of the quantified statement. These 3 regions offer assessment of the time courses of the on-line irony processing in which the time courses would indicate which irony processing theory—the standard pragmatic view (Grice, 1975), the direct access model (Gibbs, 1986), or the graded salience hypothesis (Giora, 1997)—that the participants’ irony processing pattern corresponds with.

To review, the standard pragmatic view hypothesizes that an ironic interpretation is a substitution of its literal counterpart, which results from a blatant violation of the maxims. Thus a reader or listener must compute the literal meaning of the statement first in order to see if the interpretation is compatible with the context or not. If the literal interpretation is inappropriate to the given context, it will be suppressed. Then an ironic interpretation arises to make the statement appropriate to the truth. That means ironic statements, in this view, should always be more difficult to compute than literal statements, because extra inferential processing of replacing the literal interpretation with the opposite is demanded in order to comprehend ironic utterances. This notion of extra inferential processes for comprehending ironic utterances of the standard pragmatic view is similar to the assumption of the graded salience hypothesis. The latter prioritizes the salient meaning, usually a literal meaning, of a word or phrase to be computed initially. Then, to solve the incongruence between the first interpretation and the incompatible context, the hearer/reader comes up with an ironic interpretation. However, unlike the standard pragmatic view that suppresses literal interpretation when the ironic one is present, the graded salience hypothesis predicts that the first interpretation is maintained so that the dissimilarity between them may be compared. On the other hand, the direct access model hypothesizes that ironic interpretation of a statement would be computed directly, with no need for the literal interpretation to be accessed, if the provided contextual information contains enough ironic cue. Thus, there should be equivalent effort for the participants in processing either literal or ironic statements.

The results of this present study, as presented in the previous sub-section, are more corresponding with the direct access model than with the standard pragmatic view.
or the graded salience hypothesis. Taking the findings from Region 3 into account, the difference of total reading times, of the focus phrases, between ironic and non-ironic conditions did not approach significance. The participants processed ironic utterances as quickly as their literal counterpart. It means that both ironic items and their non-ironic counterparts were processed with equivalent processing difficulty, and the participants did not need the extra process of rejecting the literal meaning when they computed ironic statements.

The findings from Regions 2 and 4 also indicate that the participants went back and re-read the sentence from the beginning to the end with an ironic condition in the same way they did in non-ironic conditions, resulting in the insignificant difference of reading times of both conditions in both regions. That means there is not any specific widespread pattern of disruption to processing ironic sentences. These results also support the hypothesis that the participants computed irony according to the direct access model. It is because the given context initially directed a quantified sentence, Regions 2, 3, and 4, to be intended either ironically or literally. Thus, there should not be any significant difference for the participants to process any of these 3 regions in both ironic and non-ironic conditions.

To compare the results of this study with the previous study that this research used as a model (Filik and Moxey, 2010), it could be said that the ways of processing English written irony of English native speakers and Thai L2 English speakers are not alike. The results of Filik and Moxey’s study showed that the participants’ reading times were longer when the statement was intended ironically, which proved that more effort was required in order to process the non-literal utterances. Thus, the results coincide with the predictions of both the standard pragmatic view and the graded salience hypothesis. Thus, for the native speakers, contextual information might not be more important than the lexical meaning of a word or phrase when they are processing a particular English statement, whether it is literal or non-literal statements.

This pattern of requiring of extra efforts in order to process ironic utterances by the native speakers of a language is also found in the cases of the natives of Finnish (Kaakinen et al., 2013), Hebrew (Giora et al., 1998), and Polish (Bromberek-Dyzman and Rataj, 2016). The results from these three studies showed that the native speakers of these three languages took longer times to read ironic remarks than their literal
counterparts. Thus, it might be said that the native speakers of the three languages, and also English native speakers, automatically compute the lexical meaning of the word or phrase before any extra contextual information is derived, when they are processing ironic utterances written in their native language.

However, as mentioned in Chapter 2, some concepts such as values, norms, belief, and stereotypes might be culture-specific meaning people in different cultures might interpret some non-literal statements in different ways (Lee, 2002; Manowong, 2011). It is unreasonable to assume that all the native speakers in every language would process ironic utterances in the same way as the above studies’ participants.

According to Panpoothong (1996), sarcastic attitudes from ironic expressions in Thai are based primarily on context, regardless of which speech acts—assertives, directives, expressive, and commissives—an ironic statement belongs to. That means Thai people ought to use contextual information to guide the interpretation of a potential ironic utterance in most of the times. Thus, contextual information is a very crucial element that could influence the interpretation of a particular utterance to be either literal or non-literal meaning for Thai people. This assumption coincides with the findings from the interviews that illustrated the participants’ perspectives about the importance of context. All of the interviewees stated that contexts are needed for them to judge whether a statement is ironic or not. That means a contextual information is very crucial for the participants in order to effectively understand ironic statements. Although an interviewee indicated that there are some signal words in Thai that could guide her to recognize a statement as an irony, even if there is no context provided, it is rarely found because Thai irony is not specified by any special lexical items or distinctive syntactic structures. Therefore, this notion of prioritizing contextual information in judging Thai ironic utterances of Thai natives mostly coincides with the assumption of the direct access model, because the contextual information would display the speaker’s attitude towards what s/he mentioned (Sperber & Wilson, 1981).

In the case of non-native speakers, according to the results of Bromberek-Dyzman and Rataj’s (2016) study, which also examined English irony processing in advance Polish L2 English speakers, it indicated that Polish L2 speakers of English did not process English ironic utterances in accordance with the direct access model, but in accordance with the standard pragmatic view or the graded salience hypothesis. In their
response-window-procedure experiment, the efficiency of processing ironic utterances of their participants decreased, compared to their non-ironic counterparts, resulting in more time spent in processing ironic condition. Thus, they claimed that irony is cognitively more demanding phenomenon than literal language. According to their results, longer response latency of processing ironic utterances, when compared to their literal counterparts, was not only observed in English ironic trials, but also in the participants’ L1 ironic trials. Although this longer latency pattern was greater in L2 trials, the differences of the data in both languages did not show any language effect.

The above processing pattern is different from the pattern observed in this current study. This is an interesting difference, indicating that one’s native language affects the way of processing L2 ironic utterances. As stated in Chapter 2 that figurative language interpreting for L2 speakers depends greatly on cultural specificity (Manowong, 2011; Kim, 2014; Togame, 2016; Shively et al., 2008), L2 speakers might adopt their own ways of comprehending non-literal language in their L1 when they encounter such language in L2. Thus, when Thai L2 English speakers process English ironic utterances, they do not automatically compute the lexical meaning of the target phrase before any extra contextual information is derived like Polish L2 English speakers do. It is because Thai speakers prioritize contextual information of interaction in order to comprehend Thai irony (Panpothong, 1996).

Additionally, according to the findings of the interviews, many of the interviewees stated that English native speakers are more straightforward than Thai people and likely to express something directly to their interlocutors most of the time. These belies about improbable use of indirect language, like irony, may shift the participants attention to prioritize more on contexts surrounding the target utterance than lexical elements when processing any English ironic statement. Therefore, the perception of the participants in the notion of cultural differences also indicated the possibility that Thai speakers of English initially consider context of interaction in order to comprehend English ironic utterances.

Moreover, the similarity between L1 and L2 systems might possibly be another factor that could cause the differences of English irony processing between Thai and Polish speakers. As Polish is based on a modified Latin alphabet and counted as a stress-timed language which is similar to English (Rubery, 2016), the similarities might affect
the way of one’s L2 irony processing pattern to be the same as in one’s native language. It is because the manipulation of stress and intonation could be counted as a part of the context of irony in English, and it seems to be similar to the way of Polish language. This leads to the assumption that similar language characteristics might cause similar irony processing pattern. Alternatively, Thai alphabets are not based on Latin, and the language is counted as a tonal language, not a stress-timed language. The differences might be the causes of different irony processing patterns which make the results of this current study and Bromberek-Dyzman and Rataj’s study to be different; even though English is L2 for both studies’ participants who had an equivalent high-level of English. Hypothetically, the differences might lead the Thai users of English to have difficulty identifying nuances of irony that the stress-timed languages have, and cause the priority to be the context of interactions, in order to understand ironic utterances, instead. Therefore, it is possible that the moderately different language systems of Thai and English might be the cause of the prioritizing of contextual information of Thai speakers of English, while Polish speakers process English irony in the same way they do in their first language because Polish and English are relatively similar.

4.2.2 Processing of pronominal reference

The results of reading time courses of Regions 6 and 7, as presented in the previous sections, could indicate the retention of interpretation(s) in processing of subsequent statements. Both regions are parts of a sentence containing a plural pronoun (they) that makes a reference to either the reference set or the complement set. Region 6 is the disambiguation of the pronominal reference to be either reference set or complement set. Total reading times in this region would suggest whether literal or ironic (or both) interpretation(s) remain active during the on-line processing of irony. However, Region 7, which is a phrase that indicated the speaker of the pronominal statement, suggests the widespread disruption of irony, the same as Region 2 and 4. The retention of interpretation(s) can contrast the predictions of the three irony processing theories of the standard pragmatic view, the direct access model, and the graded salience hypothesis.

To review, as mentioned in Chapter 3, if the reference set reference is easier to process than the complement set reference when following an antecedent statement
containing a negative quantifier in an ironic circumstance, it means that literal interpretation is suppressed and only ironic interpretation remains active. This would accord to the standard pragmatic view that predicts the literal suppression in ironic conditions. This result would also support the prediction of the direct access model, as the ironic interpretation should be the only interpretation retained in this view. However, if it is equivalent to process reference set reference and complement set reference when following either antecedent statement contains a negative or positive quantifier in an ironic circumstance, it means that both literal and ironic interpretation are retained. This latter result would support the prediction of the graded salience hypothesis.

The results from Regions 6 and 7 support the results of total reading times of the quantified phrases (Region 2, 3, and 4) showing that the participants processed ironic statements according to the direct access model. The results from Region 6 of non-ironic condition were compatible with the previous study of Moxey and Sanford (1993, as cited in Filik et al., 2011: 3786) that justified significant patterns of a positive quantified statement on reference set and a negative quantified statement on compliment set. According to that study, reference set reference should be processed easier than complement set reference when the antecedent statement contained a positive quantifier (and vice versa if the antecedent statement contained a negative quantifier). Similar to the results of Moxey and Sanford, the findings from Region 6 show that total reading times of the participants were significantly longer for complement set sentences as reference set sentences that follow a positive quantified antecedent, and vice versa when following a negative quantified antecedent.

In the case of ironic condition, the results from Region 6 presented the reversed pattern, from non-ironic circumstance, of pronominal reference towards the antecedent quantifier. The participants’ total reading times of reference set sentences were significantly longer than the total reading times of complement set sentences when following a positive quantified antecedent. On the contrary, there were significantly longer reading times for complement set sentences than reference set sentences that followed a negative quantified antecedent. These results indicated that only the ironic interpretation is active when the participants processed ironic statements.
The findings from Region 7, the same as the findings of Regions 2 and 4, indicated that there was no dispersion of influence of irony when processing ironic sentences. In both cases of non-ironic and ironic circumstances, the differences of total reading times for reference set condition and complement set condition, whether following a positive or negative quantified antecedent, did not approach significance. That means the participants processed ironic texts according to the direct access view, as there was only one interpretation left because the context initially directed the interpretation to be either ironic or literal and processing of supplemental phrases in both conditions was computed in the same amount of times.

In conclusion, the results from the experiment showed that the participants processed irony statements according to the direct access model, because they resulted in equivalent total reading times of Regions 2, 3, and 4 in both ironic and non-ironic conditions. The results from Regions 6 and 7 also confirmed the compatibility with the direct access model as there was only ironic interpretation that remained active during processing ironic texts. That means the participants did not need an extra inferential process of rejecting the literal meaning when computing ironic utterances. Contextual information, instead, is the crucial element that initially influences the interpretation of a statement to be literal or non-literal.

In summary of this chapter, the results from the experiment showed that the participants did not process the quantified phrases in an ironic condition differently from a non-ironic condition, resulting in insignificant difference of total reading times of both conditions—ironic and literal. This finding mostly coincides with the prediction of the direct access model where contextual information is treated as a very crucial element that could influence the interpretation of a statement to be either literal or ironic meaning. The compatibility to the direct access model was also proved by the findings from the interviews because all of the interviewees stated that contexts are needed for them to judge whether a statement is ironic or not. The processing pattern of pronominal reference phrases also verified that the participants processed ironic utterances in accordance to the direct access model. In non-ironic condition, the participants processed reference set sentences easier than complement set sentences when the antecedent statement contained a positive quantifier (and vice versa if the antecedent statement contained a negative quantifier). However, in the ironic condition, the simple
reversed pattern from the non-ironic condition occurred. The participants processed complement set sentences easier than reference set sentences when the antecedent statement contained a positive quantifier (and vice versa if the antecedent statement contained a negative quantifier). This reversed pattern of processing indicated that only ironic interpretation was retained during the reading of ironic statements, which coincides with the prediction of the direct access model.

In the next chapter, conclusions of the whole study are presented in order to offer a synthesis of key points that have been discussed so far. The chapter also provides some implications for L2 pedagogy and recommendations for future research.
CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

This present chapter provides a summary of this present study and implications for L2 pedagogy. The chapter also offers some limitations of this study and recommendations for future language processing research that should be taken into consideration.

5.1 CONCLUSIONS

In cross-linguistic and cross-cultural contexts, L2 speakers tend to encounter English verbal irony as much as the native speakers do because verbal irony is used pervasively in everyday communication. However, little is known about English irony in the second language acquisition field. Thus, it tends to be hard to design any course or lesson related to the topic and causes L2 speakers to perform rather poorly in interpreting English irony. Consequently, without the instruction, L2 speakers have often failed in communication in the target language as they do not really understand what the speakers actually mean when they use irony. Therefore, the present study aims to underline what should be emphasized in instruction of irony by testing the predictions of three irony processing theories: the standard pragmatic view (Grice, 1975), the direct access model (Gibbs, 1986), and the graded salience hypothesis (Giora, 1997). These three different theories predict different assumptions of on-line irony processing, which lead to different explanations of what is counted as an irony. The different explanations also indicate different main focuses of what should be taught in irony instruction. The results obtained demonstrate how Thai L2 English speakers compute L2 ironic utterances which allows us to develop a better understanding of the speakers’ way of comprehending English verbal irony.

For the standard pragmatic view, it is essential to firstly process a literal meaning of any statement when reading any text. After detecting that the literal meaning is contradictory to the given context, the ironic interpretation of opposite meaning arises and is substituted for the earlier interpretation. That means processing of ironic statements needs more effort in rejecting the first interpretation than
processing literal ones that need none. On the other hand, the direct access model predicts that what is the priority to process an ironic statement is context that contains an echoic mention. The contextual information would indicate the interpretation, whether ironic or literal, should be accessed directly. That means the literal meaning is not automatically analyzed before the figurative counterpart is derived if the context contains enough ironic cue. Thus, ironic utterances do not need extra inferential effort compared to literal statement computation. Nevertheless, the graded salience hypothesis comes to an agreement with the standard pragmatic view that irony utterances need extra inferential processes for comprehending. It means the salient meaning, usually a literal meaning, of a word or phrase takes priority attention. Then, to solve the incongruence between the first interpretation and the incompatible context, the hearer/reader comes up with ironic interpretation. However, unlike the standard pragmatic view that suppresses literal interpretation when the ironic one is arisen, the graded salience hypothesis predicts that the first interpretation is maintained so that the dissimilarity between them may be compared.

In order to distinguish the most compatible irony processing theory of Thai L2 English speakers, the current study constructed the experiment in accordance to the research questions of the study. The questions are recapped here for convenience as following:

1. Based on the standard pragmatic view, the direct access model, and the graded salience hypothesis, how do Thai L2 English speakers process English ironic utterances during on-line processing of English irony?
2. To what extent is Thai L2 English speakers’ retention of interpretation in processing of subsequent statement identified?

The experiment is based on Filik and Moxey’s (2010) study which aimed to test the predictions of the standard pragmatic view, the direct access model, and the graded salience hypothesis in English native speakers. The participants of the current study were 36 Thai L2 English speakers who were doing a master’s degree in English Language Teaching at Thammasat University. They were all L2 speakers with high competence in English. An eye-tracking method was used in the experiment in order to examine the reading time courses of the participants while they were reading
statements, whether they were ironic or non-ironic. As the final part of the study, five participants were randomly interviewed in order to explore their perspectives of what they understand as irony, as the participants’ L1 schema of what is counted as irony might affect their way of processing L2 irony.

After analyzing the findings from the experiment and interviews, the present study came to the conclusion that Thai L2 English speakers process ironic utterances according to the direct access model. The primary findings that lead to the conclusion are:

1. that Thai L2 English speakers do not need the extra inferential process of rejecting the literal interpretation when they compute ironic statements;
2. that Thai L2 English speakers compute ironic sentences and literal sentences in the same pattern;
3. that Thai L2 English speakers prioritize contextual information to be a very crucial element that could influence the interpretation of a particular utterance to be literal or non-literal meaning; and
4. that only ironic interpretation remains active when Thai L2 English speakers process ironic statements.

These findings suggested that the pattern of processing written irony of Thai L2 English speakers and English native speakers are not alike. According to the previous study that this research used as a model (Filik and Moxey, 2010), English native speakers process irony according to the assumptions of the graded salience hypothesis that predicts an additional process when computing irony, compared to a non-ironic baseline. The hypothesis also assumes that both literal and ironic interpretations are retained during on-line irony processing. Thus, English irony, for English native speakers, is a form of negations that is indirectly negated to convey a more probable interpretation to the ironic discourse (Giora, 1995). On the other hand, English irony, for Thai L2 English speakers, is a language a speaker uses in order to draw his/her interlocutor’s attention to the mention that the expression contains as the suggestions of the echoic mention theory (Sperber & Wilson, 1981). It is because contextual information is prior to the lexical meaning of a word or phrase for Thai L2 English speakers when they are processing ironic utterances.
To conclude, this study suggested the possibility that L2 speakers’ ways of understanding ironic utterances are different from those of English native speakers. L2 speakers prioritize more of the contextual information in order to interpret the meaning of a potential utterance to be ironic. Therefore, the ways of irony processing for Thai L2 English speakers is most compatible with the direct access model which leads to the assumption that irony should be defined in accordance with the echoic mention theory.

5.2 IMPLICATIONS FOR L2 PEDAGOGY

The results of this current study are beneficial for English teachers in designing a curriculum involving irony-teaching courses that could improve the students’ communicative competence. The results could guide what should be emphasized in a school curriculum to maximize the students’ understanding of irony, which is important for achieving successful communication. That is because different ways of interpreting ironic utterances between the native speakers and L2 English users might cause misunderstanding of what the speaker actually intended that could lead to communication failure.

As the findings of this current study indicated that Thai L2 English speakers compute ironic utterances according to the direct access view that gives precedence to contextual information, methods of teaching inferring meaning from context should be practiced. According to Walters (2006), there are various methods of instruction used in training English native speakers, as well as L2 learners, to be effective at inferring meaning from context. Two methods from Walters’ study could be applied to practice in irony instructions: strategy training and context clue instruction, because these two methods are proved to be effective devices in improving L2 learners’ reading comprehension.

The strategy training for teaching inferring from context is a method that provides instruction of using ‘the Ripple Strategy’ proposed by Clarke and Nation (1980, as cited in Walter, 2006: 181). The strategy consists of five steps of inferring from context. The first step is to direct students to the part of speech of the unknown word. The second step is determining the role of the word by focusing on the grammar of the sentence. The third step is focusing on the sentences around the target sentence that contain the unknown word. The fourth step is guessing the meaning of the word.
Last, the fifth step is checking the guess. However, this strategy is used for instructing the way of guessing meanings of unknown words from context. In order to apply the strategy to teach English irony, a teacher might skip the first two steps of the strategy because irony is seen to be beyond the lexical level of analysis.

The teacher could begin the procedure with the third step by leading the students to focus on the sentences around the target sentence; for example, knowing that a statement before the target sentence is a negative sentence might make it easier for the students to detect irony. Consider one of the experimental items of this study:

(46) The new deal on cheap flights was not drawing people into the travel agency. “Obviously many people are excited by these offers”, said Joyce.

If the students recognized that the first sentence is a negative sentence, it is likely that they would interpret the subsequent sentence as irony successfully. The next two steps are guessing the meaning and checking the guess. The teacher could firstly encourage the students to guess the interpretation of the target sentence. Then, let them check if their interpretation is correct or not by providing other subsequent context. Consider the extension of the above example:

(47) The new deal on cheap flights was not drawing people into the travel agency. “Obviously many people are excited by these offers”, said Joyce. “They probably haven’t seen the added bonuses”, sighed Doreen. She decided it was time for a cup of tea.

In seeing the additional subsequent sentences, the students could be more certain that the phrase “Obviously many people are excited by these offers” is intended ironically. Therefore, 3 steps of the strategy training for teaching inferring from context could be applied to instruct the students about the irony.

Another method from Walters’ study that is proved to be one of the effective devices in improving L2 learners’ reading comprehension is context clue instruction. This instruction is a teaching method that provides the ways to analyze contextual information in order to increase word identification and support word meaning (Hibbard, 2009). In irony instruction, a teacher may apply this method in order to direct the students to some crucial words that could determine the interpretation of the target sentences. For example, the students might be encouraged to focus on some words that
contain positive or negative connotations. Consider one of the experimental items of this study:

(48) Alice looked depressed at the huge piles of leftovers after the dinner party. “I see many people enjoyed their dinner”, said Bill.

The word *depressed*, which contains a negative sense of meaning, is a very crucial clue for interpreting the subsequent sentence to be irony. Thus, in directing the students to focus on the connotation of the provided words, the students could comprehend irony more accurately.

In conclusion, two methods of teaching inferring meaning from context could be applied to practice in irony instructions: strategy training and context clue instruction. By applying 3 steps of the strategy training method of focusing the surrounding sentences, guessing the meaning, and checking the meaning, the students would be instructed to focus on the context of the potentially ironic utterances, the same as for applying context clue instruction. These applications could benefit L2 students in improving irony comprehension the most, because the findings of this current study indicated that Thai L2 English speakers compute ironic utterances according to the direct access model that gives precedence to contextual information. Thus, methods of teaching inferring meaning from context should be practiced.

5.3 LIMITATIONS AND RECOMMENDATIONS

This sub-section discusses some limitations of the experimental work reported in this study and some suggestions that further language processing research or other related works should take into consideration.

First of all, this study experimented with irony processing on only Thai L2 English speakers with high competence in English who were doing a master’s degree in English Language Teaching at Thammasat University. The issue is that only high language proficiency speakers were examined. As proved by the previous studies (Khaxaldeh, 2015; Shively et al., 2008; Manowong, 2011) that linguistic competence of the target language affects understanding ironic expressions a great deal, investigating low proficiency English users by comparing their ways of processing irony to the high proficiency speakers might offer some distinguishing factors indicating the low proficiency learners’ irony processing difficulties. Another possibly
related issue is that only MA-ELT students were recruited as participants of this study. This issue has made it difficult to draw a conclusive assumption that could apply to all Thai L2 English speakers because there is no variety of students from other study majors. Therefore, the further study should consider replicating this study on a larger scale, perhaps by adding low proficiency level for comparison, or including more varieties of study majors for generalizing the findings to the whole population.

Without experimental work on processing Thai irony, the preceding conclusions might not be drawn as decisively as they could be. It is because, as discussed in the previous chapter, different first language of the participants might cause different L2 irony processing patterns. To affirm the assumption, conducting the same experiment testing processing Thai irony in Thai speakers of English is needed, so that the data from both L1 and L2 of the participants could be aligned in parallel in order to illustrate the similarities or differences between the two languages.

Another issue that should be addressed is the use of only written form of experimental items in the experiment. There were no auditory and visual contexts in this study’s experiment due to the fact that the necessary data was from only reading time courses. However, as some participants stated in the interviews that tone of voice, body language, and facial expression of the speaker could help in detecting irony, including auditory and visual contexts might provide a clearer picture of the way second language speakers compute ironic utterances.

This study also suggests a pedagogical implication of applying two methods of teaching inferring meaning from context with regard to the findings of this study. It would benefit both second language learners and teachers if there are some studies aiming to develop contextual information lessons for irony instruction. This is because there is no study, to the researcher’s knowledge, that has been done before. In spite of the fact that explicit instruction of irony is an effective method for developing the learners’ ironic interpretation accuracy (Bouton, 2004), little attention has been paid to which method is the most effective. With the findings of this study that indicate the priority of contextual information in interpreting irony, further study could be conducted to investigate the effectiveness of those instructions suggested in the above section—strategy training and context clue instruction methods for teaching inferring meaning from context.
REFERENCES


APPENDICES
APPENDIX A
ORTHOGRAPHIC SYSTEM (Panpothong, 1996: 131)

<table>
<thead>
<tr>
<th>Consonants</th>
<th>Bilabial</th>
<th>Labio-dental</th>
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<th>Velar</th>
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<th>Vowels</th>
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All vowels are occur either long or short. Long vowels are represented by the symbol, while the short vowel written twice.
### Diphthongs

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### Tones

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### APPENDIX B

**LIST OF THE EXPERIMENTAL ITEMS USED IN THE STUDY**

<table>
<thead>
<tr>
<th>Story No.</th>
<th>Condition</th>
<th>Experimental Item</th>
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<tbody>
<tr>
<td>1</td>
<td>Non-ironic many</td>
<td>Alice looked proudly at the pile of empty plates after the dinner party. “I see many people enjoyed their dinner”, said Bill. “They must have [been very hungry(^a)/eaten earlier(^b)]”, replied Alice. She always got stressed when she had to cook for people.</td>
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<td>b Complement set</td>
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<td></td>
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<td></td>
<td>Non-ironic not many</td>
<td>Alice looked depressed at the huge piles of leftovers after the dinner party. “I see not many people enjoyed their dinner”, said Bill. “They must have [been very hungry(^a)/eaten earlier(^b)]”, replied Alice. She always got stressed when she had to cook for people.</td>
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<td>2</td>
<td>Non-ironic many</td>
<td>The new deal on cheap flights was really drawing people into the travel agency. “Obviously many people are excited by these offers”, said Joyce. “They probably haven’t seen the added [charges\textsuperscript{a}/bonuses\textsuperscript{b}]”, sighed Doreen. She decided it was time for a cup of tea.</td>
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<tr>
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<td>Maggie looked at the very long list of volunteers to help with her charity. “Clearly many people are willing to give up their spare time”, exclaimed the coordinator. “They are very [selfless\textsuperscript{a}/selfish\textsuperscript{b}]”,</td>
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| Ironic *many* | replied Maggie. She still had to find some good prizes.  
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| b Complement set |  
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| 4 | The activity hall was full of enthusiastic people. “It looks like many people are taking their fitness seriously”, said Joan. “They will be [thankful when they get fitter/sorry when they get fatter]”, replied the instructor. He had a firm belief that exercise is very important.  
| a Reference set |  
| b Complement set | The activity hall was pretty empty. “It looks like many people are taking their fitness seriously”, said Joan. “They will be [thankful when they get...
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| **7**  
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  a Reference set  
  b Complement set | The nurse surveyed the relaxed faces of the doctor’s patients on the ward. “I see many people are comforted by your bedside manner”, said the nurse. “They know that the risks are [low\(^a/\)high\(^b\)]”, replied the doctor. It was almost time to go down to surgery. |
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BIOGRAPHY

Name Miss Pimrat Fongchamnan
Date of Birth March 7th, 1988
Educational Attainment 2013: Bachelor of Arts, English major
2017: Master of Arts, English Language Teaching
Work Positions - Freelance English teacher
- Freelance translator
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Work Experiences 2017 - Present: Research Assistant:
National Electronics and Computer Technology Center (NECTEC)
2014 – Present: Freelance English teacher
2013: Teaching Assistance:
Absolute English, Bangkok, Thailand
2011 – Present: Freelance Translator