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A CORPUS-BASED
REASERCH OF
CHINESE VERBAL
IRONY

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A Corpus-based Research of
Chinese Verbal Irony

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degree of Doctor of Philosophy

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CERTIFICATE OF ORIGINALITY

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Abstract

Irony has been on the minds of researchers for decades as a rhetorical device that is heavily reliant on context. Researchers can always find fresh points to research on ironies because of their deep-seated meanings and intended ambiguity. In the past, most scholars believed that "contradiction" or "incongruity" was the most important aspect of irony. We confirm that the true nature of irony is "reversal" in this thesis, which is supported by several examples from practice. The term "reversal" comes from the psychological area and refers to the psychological process that people go through when they flip from one psychological state to the other. We believe that the ability to activate this switch is a necessary requirement for an irony to exist. There are eight types of reversals utilized in ironic expressions, as well as several assistance ways to check the expressions' ironic tendencies.

Although irony is a phenomenon that is extremely dependent on the subjective motivations of speakers/writers and the subjective feelings of listeners/readers, we still need a standardized way to identify it from other expressions in order to do study on it. As a result, in this thesis, we propose the Irony Identification Procedure (IIP). The basic phases of this method are not overly complicated, making it simple to comprehend for those without a linguistic background. However, because we specify the particular rules for each stage, we may be confident that the expressions recovered by this approach are typical ironies.

Meanwhile, irony, as a linguistic phenomenon that is used as a pragmatic device, is frequently thought to be difficult to detect using established rules such as lexical or grammatical elements. However, we suggest that, while all expressions may have ironic potentials that can be activated by specific contexts, phrases that contain specific constructions are considerably more likely to be ironic than expressions that do not. From large-scale corpora, more than fifty structures are found that are extremely likely to include ironic intentions. The thesis examines each one separately.

Finally, we create a Chinese Irony Corpus, which consists of 949 items. All of the items were culled from large-scale corpora including language content from a variety of fields. Each thing is annotated with the ironic sections, ironic level, reversal devices, and emotions. We also compare the of different reversal devices by rephrasing each reversal portion of each item. The corpus provides ample resources for our research, and the quantified "influences" may be useful in future automatic detection studies.

Publications arising from the thesis

1. An-Ran Li, Emmanuele Chersoni, Rong Xiang, Chu-Ren Huang & Qin Lu. On the "Easy" Task of Evaluating Chinese Irony Detection. In *Proceedings of The 33th Pacific Asia Conference on Language, Information and Computation (PACLIC 2019)*. Hakodate, Japan. 2019.
2. An-Ran Li, & Chu-Ren Huang. A Method of Modern Chinese Irony Detection. In: Jia-Fei Hong, Qi Su (eds.), *From Minimal Contrast to Meaning Construct*. Springer & Peking University Press. 2019.
3. Xiang, R., Gao, X., Li, A., Long, Y., Chersoni, E., Lu, Q., & Huang, C. R. Ciron: a New Benchmark Dataset for Chinese Irony Detection. In *Proceedings of The 12th Language Resources and Evaluation Conference*. 2020, pp. 5714-5720.

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Table of contents

CERTIFICATE OF ORIGINALITY.....	3
Abstract	4
Publications arising from the thesis	5
Acknowledgement.....	6
Table of contents.....	8
Chapter 1 Introduction.....	1
1.1 Motivation	1
1.2 How we begin.....	5
1.3 Thesis organization.....	6
Chapter 2 Previous Studies.....	9
2.1 Theoretical studies of irony.....	9
2.1.1 Definition	9
2.1.2 Linguistic features.....	11
2.1.3 Classification.....	14
2.1.4 Psycholinguistics hypotheses	16
2.1.5 Irony and sarcasm	17
2.1.6 Other linguistic phenomena related to irony.....	18
2.2 Related theories	27
2.2.1 Reversal theory.....	27
2.2.2 Construction Grammar	29
2.3 Applied studies of irony.....	31
2.3.1 Corpus Studies.....	32
2.3.2 Computational linguistic approaches	34
2.4 Conclusion	35
Chapter 3 Methodology	37
3.1 The definition of irony.....	37
3.2 Different kinds of reversals in irony	39

3.2.1 Rhetorical Reversal.....	41
3.2.2 Expectation Reversal	44
3.2.3 Evaluation Reversal	46
3.2.4 Reversal of sentiment.....	49
3.2.5 Reversal of factuality	50
3.2.6 Relationship reversal	51
3.2.7 Reversal from opposite pair	52
3.2.8 Reversal from satiation.....	53
3.2.9 Other devices.....	55
3.2.10 Conclusion: Why we emphasize reversal	60
3.3 Irony Identification Procedure (IIP)	62
3.3.1 Brief introduction	62
3.3.2 Distinct decisions in IIP	69
3.3.3 More examples in application of IIP	79
3.4 Usages of corpus based methods.....	87
Chapter 4 Construct of irony corpus	90
4.1 Method of extracting ironic expressions.....	90
4.1.1 Basic structure of the corpus.....	90
4.1.2 Items which have gaps between different annotators	100
4.2 Analysis of the corpus data	102
4.2.1 Distribution of reversal devices.....	102
4.2.2 Co-occurrence of different devices	108
4.2.3 Emotions of ironic statements	113
Chapter 5 Construction analysis.....	118
5.1 Ironic constructions which use rhetorical reversal	119
5.1.1 np. +有 这么+ vp. + 的吗 / 有+ np. +这么 + vp. + 的吗	120
5.1.2 np. + 算 老几.....	122
5.1.3 r. + 以为/当 + r. 是谁.....	123
5.1.4 有 什么 + v. + 头	125

5.1.5 有什么好/可/值得 + vp. + 的	126
5.1.6 这叫/算什么 + X + 啊	128
5.1.7 r. + 又知道/懂了	129
5.1.8 r. + 以为/当 + r. + 是 + np. / r. + 以为/当 + r. + 在 + vp./np.	130
5.1.9 谁让/叫 + np. + X	132
5.1.10 要不要这么 + a.	134
5.1.11 真的有人 + X + 吗? / 不会真的有人 + X + 吧?	135
5.2 Ironic constructions which use expectation reversal	137
5.2.1 还敢/能再 + a. + (点儿/一点/一点儿) 么	137
5.2.2 敢不敢/能不能再 + a. + (点儿/一点/一点儿)	139
5.2.3 np. + 尽管 + X	140
5.2.4 (你) 来 + v. + 我啊	141
5.2.5 r. + 敢!	143
5.2.6 再 + vp. + (一 + quantifier) +(试试)	143
5.2.7 (np.) 有本事 (就) + vp.	144
5.2.8 np. + v. + 给我看看	146
5.2.9 爱/想/愿意 怎么 + vp. +(就) 怎么 + vp.	147
5.3 Ironic constructions which use evaluation reversal	148
5.3.1 亏 + np. + vp. ₁ + 得 + vp. ₂	148
5.3.2 亏 + np. + (还) + vp.	150
5.3.3 还 + np. + 呢	152
5.3.4 np. + (可) 倒好	153
5.3.5 好 + r. + 个 + np.	155
5.3.6 有 + np. + 好 + v. + 的	156
5.3.7 真有你的	157
5.3.8 这 + n. + v. + 的/得	159
5.3.9 这下好了 / 这下可好	160
5.3.10 道貌岸然	162
5.3.11 看起来/感觉好厉害的样子	163

5.4 Ironic constructions which use reversal of factuality.....	164
5.4.1 不是 我 + vp. +np.	164
5.4.2 np. ₁ + (是)+ np. ₂ , np. ₃ + 还 (是)+ np. ₄ + 呢.....	165
5.4.3 太阳 从 西边 出来.....	166
5.4.4 我 (难道) 会 告诉/说 / 我 不会 告诉/说.....	167
5.4.5 (系统) 自动 转发.....	168
5.4.6 Untimely statement of objective fact.....	169
5.5 Ironic constructions which use reversal of sentiment	170
5.5.1 拜 +X+ 所赐.....	170
5.6 Ironic constructions which use relationship reversal.....	173
5.6.1 贵人多忘事.....	173
5.7 Other ironic constructions or irony markers.....	174
5.7.1 A code-switching method.....	174
5.7.2 滑天下之大稽.....	176
5.7.3 友军.....	176
5.7.4 一 开口 就是 老 阴阳师 了.....	177
5.7.5 队长 别 开枪 是 我.....	178
5.7.6 狗头 保命.....	178
5.7.7 二 营长, 把 我的 意大利.....面 拿来.....	179
5.8 Whether constructions can help people/machine to detect ironies in database with no pre-condition	180
Chapter 6 Experiment	185
6.1 Experiment procedure.....	185
6.1.1 Rephrase.....	185
6.1.2 Build dataset.....	189
6.1.3 Calculate the average effect degree of each reversal device.....	192
6.2 Results analysis.....	193
6.2.1 Results from Database One: single-device items	193
6.2.2 Results from Database Two: multiple-devices items	196

6.2.3 Results from Database Three: all the items	206
Chapter 7 Conclusion	208
7.1 Contributions.....	208
7.1.1 The nature of irony.....	208
7.1.2 Irony Identification Procedure (IIP)	210
7.1.3 Ironic constructions in Chinese	211
7.1.4 Chinese Irony Corpus.....	212
7.1.5 Possible applications	213
7.2 Limitations	214
7.3 Future works.....	215
References.....	217

List of figures and tables

Figure 1. Different kinds of fake news

Table 1. Irony percentage in preliminary investigate

Table 2. Frequency of occurrence of reversal devices

Table 3. Frequency of co-occurrence of two different reversal devices

Table 4. Frequency of different emotions in the literal meanings of the items

Table 5. Frequency of different emotions in the contextual meanings of the items

Table 6. Frequency of emotions transition models between literal and contextual meanings

Table 7. Ironic score distributions in CIRON(no pre-condition database)

Table 8. Distributions of ironic constructions in CIRON

Table 9. Sample of the items in the experiment databases

Table 10. E_A value of different reversal devices in single-device items

Table 11. E_A value of different reversal devices in multiple-device items

Table 12. E_A value of different reversal devices in all the items

Chapter 1 Introduction

1.1 Motivation

As linguistic research continues to deepen, an increasing number of scholars are focusing on somewhat abstract linguistic phenomena in recent years. The properties of these phenomena are vaguer or more unclear than those of typical linguistic issues, even if they are also communicated through writing or speech. They must rely on contextual or pragmatic knowledge for the most part. Some of them will even need to refer to information that is not contained inside the text (e.g. world knowledge, domain knowledge, tones and gestures). The true meanings of these linguistic events are usually based on semantic aspects, but they can also be dependent on other factors. They are more diverse and context-sensitive because of the ramifications and subaudition. Even if native speakers can't quite understand them when there isn't enough reference information available. Irony has recently become a hot topic that has sparked a lot of debate as a linguistic phenomena of this nature.

Irony research has meanings in both the theoretical and practical realms. On the one hand, because the literal and contextual meanings can only be distinguished inferentially, determining the map mechanism and semantic principles of irony should be a difficult but important endeavor. It can assist us in better comprehending the grammatical and semantic character of this linguistic phenomena, which is mostly manifested at the pragmatic level. Meanwhile, because it is a form of expression that is heavily reliant on the subjective intentions of speakers/writers, studying its processing from a psycholinguistic perspective can help us better understand how people perceive complicated verbal activity. Enhancing one's understanding of irony, on the other hand, can aid both humans and computers in deciphering the true meanings of the speakers'/writers' true intentions. It can reduce our communication costs for humans. It improves the performance of semantic analysis in natural

language processing. Automatic irony identification, for example, can be used in a variety of text mining applications, including author profiling, online harassment and hate speech detection, and possibly the most well-known task of affective analysis.

Only 57 studies on irony and sarcasm were published in linguistic scientific publications or conference proceedings between 1975 and 2004, according to Laszlo (2017). There were 22 theoretical papers and 35 application-oriented papers among them. The theoretical framework of irony and the contrasts between irony and sarcasm were the focus of most investigations during this time period. Automatic detection of irony became popular between 2005 and 2016, thanks to the advent of computational linguistics. Only four theoretical research were published in journals or conference proceedings throughout these ten years. Although it is a great trend that scholars are doing more research on this unique linguistic phenomenon, it is *"highly suspicious on the grounds that it tries to put something into practice that has no established theoretical background at all,"* as Laszlo (2017) pointed out. More research on irony and sarcasm was carried out after 2016. However, similar to the trend from 2005 to 2016, only nine of the 53 publications found in linguistic journals or conference proceedings attempted to do study on the linguistic phenomena itself or propose new ideas, while the remaining 45 papers concentrated on automatic detection. Irony and sarcasm were mostly seen as normal linguistic expressions, and machine learning approaches and models were used to detect them. Despite the fact that some of them reported strong results, the linguistic characteristics beneath the expressions remained ambiguous. In the meantime, because their approaches did not rely on linguistic theories, they did not devote enough time to investigating the underlying laws, limiting their universality. Oren Tsur et al. (2013), for example, used the k-nearest neighbors technique to complete the identification job in their semi-supervised recognition system. They employed only punctuation and a few abstract phrases made up mostly of function words as their linguistic patterns. Antonio Reyes et al. (2011, 2012) collected ironic expressions from Twitter using the

hashtag #irony and fed the language materials into classifiers. They developed four irony models from a linguistic perspective, which are signs (such as counter-factuality), unexpectedness (such as contextual imbalance), emotional scenarios (such as imagery), and style, which they compared to other studies. These linguistic references provide more dependable resources for classifiers to make decisions, but the results are still unsatisfactory because the models aren't specific to irony.

Irony was viewed as a rhetorical device in the majority of publications that focused on the linguistic level. The following are the primary themes of discussion:

1) From the perspective of cognitive linguistics, how can ironies originate from discourses and how do individuals decipher the genuine meanings behind the literal meanings? Grice (1975) is a good place to start. This paper's philosophical-logical explanation of irony is the original theory, yet it undoubtedly contains flaws. Sperber and Wilson coined the term "echoic" to describe irony as "an echoic use of language," based on this hypothesis.

2) How many sorts of ironies are there in our statements, from entire texts (or discourses) to single phrases? See, for example, Booth (1974), Kreuz and Roberts (1993), and Gibbs et al. (1991);

3) the distinctions between irony and sarcasm: As we already stated, this was a popular topic before to 2005. Several studies have attempted to define these two notions precisely and to compare and contrast their expressions and functions: Most of the studies treated sarcasm as a subcategory of irony, as Barbe(1995) did. Sarcasm, on the other hand, according to Haiman (1997), is more unpleasant and stinging than irony, and is frequently directed towards specific groups. Furthermore, when compared to irony, Littman and Mey (1991) believe that sarcasm is more dependent on the communication setting.

4) The pragmatic role of ironies in literary works: These studies were more

interested in understanding why people utilize ironies in writings or discourses rather than expressing their true meaning directly. Irony is an indirect denial, according to Giora (1995). Irony, when compared to direct expression, helps to soften the harsh assessment (Dews and Winner, 1999). It can even protect the speakers themselves (Brown and Levinson, 1987). (Giora, 1995). They relied more on non-textual information such as tones, speaker speech habits, and contextual aspects when determining the major features of the ironies.

5) How do we output irony and how does our brain process ironic input from a psycholinguistic perspective? Giora (1997) proposed the graded salience hypothesis, and Gibbs (1986) proposed the direct access hypothesis.

Although there were some theoretical studies included, there was a common theme: the majority of the studies focused on how we categorize and analyze an expression when we already know it is ironic, while just a few of them addressed how we determine whether an expression is ironic or not. Furthermore, because these studies focused on categorization work or pragmatic and psycholinguistic functions, the majority of them covered a wide range of ironies, while only a few focused on a specific type of irony. There have been few studies on verbal ironies, to put it that way. In the meanwhile, most studies are conducted in English, with only a handful focusing on Chinese (Among the papers we find, only three of them put forward theoretical hypothesis of Chinese ironies). While there are certain commonalities between Chinese and English, more "individualities" of Chinese must be discovered. And, due to a dearth of research, there is just one Chinese corpus that focuses on irony at the moment. Irony isn't even classified as an independent element in any online corpus. It is difficult for scholars to find language materials and conduct study on Chinese irony since the proportion of irony in the general corpus is too low. Finally, because irony is an abstract idea, we have yet to find an exact definition for it as a specific linguistic concept. The depth and breadth of a concept's definition, as we all know, must be balanced. That is, it is not only necessary to highlight all of this concept's aspects, but

it is also necessary to mention all of the extreme situations. Because existing theories can't account for all possible scenarios, further research into the essence of irony is still required.

As a result, we'll focus on the concept of irony and the characteristics of Chinese verbal irony in this thesis. We seek to develop a strategy for judging ironies that is both effective and normative. Simultaneously, we will attempt to categorize the development mechanism of irony as well as the main strategies of expression of verbal ironies based on our observations of language materials. Meanwhile, we'd like to create a Chinese irony corpus with a wealth of language resources and manually annotated data. This corpus will be helpful in future irony studies.

1.2 How we begin

Because existing definitions of irony do not capture all of the instances in actual verbal actions, this thesis will first propose a new definition of irony that attempts to encompass all types of ironic statements.

Despite the irony that researchers have debated how to assess known ironies, few have developed standards to recognize them in large texts, as we previously stated. As a result, the thesis proposes a standard approach for determining whether or not a remark is ironic in order to normalize the judgment.

We discover that the conventional classification methods for irony are insufficient for Chinese verbal ironies as we go through this usual procedure. As a result, we devise a novel approach for classifying them. We also discovered that some formulations make it easier for listeners/readers to understand the ironic intents. As a result, we've included a list of similar structures.

Furthermore, in order to address the absence of fundamental infrastructure to facilitate theoretical and computational research on irony in Chinese, this thesis

created a Chinese Irony Corpus, which comprises a large number of ironic objects as well as fine-grained annotation. To extract ironic expressions, we collect linguistic materials from Weibo and BCC (Xun et al., 2016) and combine automatic approaches with manual annotation. Linguistic data such as ironic level score, ironic portions, reversal devices, and literal/contextual emotions will be included in the corpus for future research.

We also discovered that different types of reversals result in varying ironic levels, but an ironic statement can be a combination of reversals. We design an experiment based on the corpus to see how the reversal elements affect people's irony judgements.

1.3 Thesis organization

After stating why we choose this topic and how will we do research on it, we will introduce the previous studies which are related to this thesis. Chapter 2 focus on literature review and has three main parts: theoretical researches of irony (2.1), theories which are related to this research (2.2) and application researches of irony (2.3). As what we mentioned, the theoretical researches on irony include at least five directions: what is irony and how it emerges from discourses (2.1.1), what is the aim of using irony and how it be expressed (2.1.2), how many kinds of ironies are there in discourses (2.1.3), what is the psychological mechanism of irony generation and comprehension (2.1.4) and what are the relations and differences between irony and sarcasm (2.1.5). Besides these topics, we also compare irony with fake news (especially satire) and puns (2.1.6). Section 2.2 introduce two theories: construction grammar (2.2.1) and reversal theory (2.2.2). These two theories do not come from irony studies but we adopt them in our research. Section 2.3 mainly talk about the corpus studies(2.3.1) and the automatic detection studies(2.3.2) of irony.

The thesis' basic technique is outlined in Chapter 3. The meaning of "irony" in

this thesis is defined in Section 3.1, as well as the scope of our research. We describe nine different types of linguistic strategies in section 3.2, all of which can lead to reversals and further establish ironies. Rhetorical reversal (3.2.1), expectation reversal (3.2.2), evaluation reversal (3.2.3), reversal of sentiment (3.2.4), reversal of factuality (3.2.5), relationship reversal (3.2.6), reversal from opposite pair (3.2.7), reversal from satiation (3.2.8), and "other" devices such as idiom-like constructions and irony markers are examples of these devices (3.2.9). In Section 3.3, we propose a method called Irony Identification Procedure, which is based on the Metaphor Identification Procedure (MIP) proposed by Pragglejaz Group (2007). (IIP). We'll utilize it as a benchmark in our research to help annotators determine whether or not a given expression is ironic. Section 3.3.1 quickly explains IIP's core approach and provides an application example by applying it to a real-world text. Section 3.3.2 goes on to discuss the four key considerations that should be taken when employing IIP (stable unit in 3.3.2.1, description of contextual meaning in 3.3.2.2, description of literal meaning in 3.3.2.3, and degree of distinctness between literal and contextual meaning in 3.3.2.4). In 3.3.3, we use four pairs of expressions that may include four distinct types of reversal devices to explain how people can use IIP to real expressions in detail. Finally, we explain why we employ corpus-based methodologies in this thesis and the corpora we use in Section 3.4.

We build a Chinese Irony Corpus in Chapter 4 based on ironic expressions found in large-scale corpora. In Section 4.1, we introduce the process of collecting and annotating samples in detail. Section 4.2 examines the corpus data from the perspectives of the items' reversal devices (4.2.1 and 4.2.2) and their emotions (4.2.3).

The structures used to communicate ironic intents are examined in Chapter 5. This chapter includes both classic and freshly developed constructions (mostly derived from cyber language). Constructions are classified into seven categories based on the reversal devices they used: rhetorical reversal (5.1), expectation reversal (5.2), evaluation reversal (5.3), reversal of factuality (5.4), reversal of sentiment (5.5),

relationship reversal (5.6), and other ironic constructions or irony markers (5.7). This chapter introduces around 50 different constructions. It should be a fairly comprehensive list of constructs with ironic potential.

In Chapter 6, we design an experiment to measure the average influences of different reversal devices in order to compare the influences of different reversal devices to the ironic degree of the expressions. The protocol of the experiment is presented in Section 6.1, while the findings are examined in Section 6.2. The findings may one day serve as a benchmark for future automatic identification tasks, allowing researchers to assign different weights to different linguistic devices.

The conclusion chapter of this thesis is the final chapter. In this chapter, we summarize the findings of our study and discuss possible research directions in the future.

Chapter 2 Previous Studies

This chapter contains both theoretical and practical research that is relevant to the study of this thesis. The chapter is broken into three sections: theoretical studies of irony (2.1), ideas from other fields that can be adopted for this study (2.2), and applied studies of irony (2.3). In particular, section 2.1 will include not only alternative definition hypotheses (2.1.1) and linguistic features (2.1.2), but also classification studies (2.1.3) and psychological mechanism theories (2.1.4). This section also contains research on the differences between irony and sarcasm (2.1.5). Meanwhile, we'll look at some other linguistic occurrences that are analogous to irony, such as fake news (particularly satire) and puns (2.1.6). Section 2.2 introduces two theories that will be used to support this thesis. Construction grammar (2.2.1) and reversal theory (2.2.2) are the two. Although the ideas themselves are not aimed at irony, they can be applied to irony research. The application research section additionally includes two subsections: corpus studies (2.3.1) and automatic application (2.3.2).

2.1 Theoretical studies of irony

2.1.1 Definition

According to the definition in the Merriam-Webster Dictionary, irony is "the use of words to express something other than and especially the opposite of the literal meaning". This definition is the basic concept raised by Grice (1975). As one of the most influential studies on irony, the philosophical-logical treatment concept raised in this paper earned both widespread reference and strong criticism. In the theory, Grice pointed out that irony violates the cooperative principle of speech: in conversation, the content of an expression needs to be true, otherwise the communication is

ineffective. Grice considers that irony breaches this quality maxim principle since the listeners need to assume that the speaker intends to put forward a proposition which is "contradictory" to the one they purport.

Based on Grice's theory, many different definitions were generated from linguistic, literary as well as rhetoric studies. However, Sperber and Wilson (1986, 2012) pointed out that studies based on Grice's theory cannot cover a lot of ironic situations. For example, some expressions have no "literal meaning" to be contradicted since there is no "literal meaning" be mentioned in the context. In this situation, the "something other than" comes from the language environment or presuppositions, instead of the "literal meaning". They (1981) claim that *"the speaker in irony does not use the proposition expressed by her utterance in order to represent a thought of her own which she wants the hearer to accept as true, but mentions it in order to represent a thought or utterance she tacitly attributes to someone else, and which she wants to suggest is ludicrously false"*. They abandoned traditional semantic theories of irony in favor of a new hypothesis that can account for non-propositional irony. In the book *Relevance: Communication and cognition* (Sperber and Wilson, 1986), they raised the most important theory of their irony study: Relevance Theory and the "echoic" concept. In the study, they consider irony as "an echoic use of language in which the speaker tacitly dissociates herself from an attributed utterance or thought" (Wilson, 2006). That is, if the "echoic use" is incongruous in some ways, the expression can be ironic.

A lot of research adopts Sperber and Wilson's theory. Seto (1998) considers that there are some "echo-markers" like *"definitely," "really,"* and *"indeed."* These markers can give the listeners/readers a cue of ironic intention. He put forward the idea that if an "echo-marker" is present in a specific position in a sentence, then the sentence can be an irony. However, he didn't do a detailed analysis of how these words work and whether they are specialized in irony. Besides that, other research, which includes

both linguistic studies (Hsu, 2014; Su and Huang, 2019) and computational studies (Ivanko and Pexman, 2003; Tang and Chen, 2014; Joshi, Sharma, and Bhattacharyya, 2015), is all focused on the detection of incongruity in context.

2.1.2 Linguistic features

Most studies saw irony at the pragmatic level. They analyze why people use these kinds of expressions to hide their real thoughts beneath an "incongruous" literal statement. There are two kinds of "incongruities": using positive expressions to express negative attitudes (or situations) or, on the contrary, using negative expressions to express positive attitudes (or situations). Researchers claim that by using this kind of expression, people have several kinds of intentions:

1) Be polite: As an indirect language device, irony can save people's face and ease the embarrassment. It is a remedial technique that is used to ease the behavior that may split the relationships. Brown and Levinson (1987) adopted this assumption and considered that when negative attitudes like opposition, criticism, and complaints are expressed with irony, the threat to the listener's reputation decreases. Jorgenson (1996) did three experiments to examine the assumption, and the results supported it. Giora (1995) considers that irony is an indirect negation. Because direct negation can cause significant dissatisfaction, people prefer to use indirect negation to be polite to their listeners (e.g., A: The movie is really interesting, isn't it? B: *If you really believe that, yes.*

2) Ease criticisms: When the speakers do not agree with something, but in order to avoid direct conflict, they do not want to deny others' opinions directly, they tend to use irony. Dews and Winner (1999) consider irony to ease the evaluative function of the expression. They consider that the incompatibility between literal meaning and the

context can disturb the expression of negative attitudes. However, Toplak and Katz (2000) disagree with this opinion. They consider that although irony literally avoids conflict, from the angle of the speakers' intention, it is more aggressive; (e.g., *A: Excuse me, what do you think of Monica Lewinsky? Monica Lewinsky, anyone? Well, as far as I know, she is a very loyal person.*)

3) Self-protection: the "echoic" concept raised by Sperber and Wilson (1986) considers that irony is a detached expression which is just an echo of another's thought. It is a self-protection mechanism, especially when the speakers are in disadvantaged groups. Giora (1995) and Haiman (1998) also hold this opinion. Gibbs (2000) also said that irony is an "off-record" expression, which can leave the speakers with the opportunity to deny their real intention and avoid being contradicted; (e.g., *The dear leader played the "trump" card and played it very well.*)

4) Be amusing: Researchers discovered that using irony can make the conversation more amusing and create a more relaxed environment. Gibbs (2000) findings indicate that, when young people intend to be humorous, 50% of their expression is ironic. It can help people build a conversation platform on which the speakers and the listeners share some consensus and make communication easier. (For instance, *Sheldon: If you know so much, how come I have a date tonight and you have nothing better to do but drive me there? Penny: You make a good point.*)

Besides the research on pragmatic factors, people also do research on the emergence of "incongruities". Most of the research considers that "incongruities" can be reflected on different levels:

1) Semantic Level: It can be reflected in semantic conflict. This is the most direct way to express ironic meaning. The incompatibility between the main words of the proposition leads to the ridiculousness of the proposition. For example,

[1] *It's very considerate of you to make such a loud noise while I was asleep.*

In this sentence, in the environment of "I was asleep", the conflict emerges between "considerate" and "make such a loud noise". This "incongruity" is not the most direct one. Some expressions even directly use the opposite pair in one sentence to show the incongruity. Ding (2018) did research on these kinds of opposites in Chinese. Meanwhile, these kinds of conflicts can also be reflected between literal meaning and situational context, or between physical context and psychological context.

2) Verbal Behavior Level: According to Searle (1975), there are four different kinds of illocutionary acts: assertive, directive, commissive and expressive. Since irony is a kind of illocutionary act, we can also view this linguistic phenomenon through these four kinds of expression methods:

a. Assertive: The speaker believes that the listener can understand the real meaning of the expression from the opposite side according to the context. For example,

[2] *A: Tom wouldn't lend his money to us.*

B: He is a true pal, don't you think so?

b. Directive: When the speaker asks the listener to do something but the listener considers the proposition is unreasonable, the listener will also try to understand the meaning from the opposite side. For example,

[3] *Very well, keep insulting me!*

c. Commissive: Both the speaker and the listener know the speaker doesn't have

the ability to realize his promise, then the promise should be an irony. For example, the speaker is illiterate, but he says:

[4] *Shall I write the essay for you?*

d. Expressive: This kind of irony often have the verbs like “thank”, “congratulate”, “apologize”, “condole”, “welcome” etc. For example,

[5] *I congratulate you on winning the scholarship.*

[6] *Thank you for refusing to help me.*

3) Evaluation Level: Kotthoff (2003) considers that the key of irony communication is the cleft between dictum and implication. Recognizing and bridging this chasm is the understanding of irony. That is, process the evaluation contrast according to the literal meaning data set and the real meaning data set. Hartung (1998) claims that the evaluation of irony has three features: 1) Evaluation is a mental activity. People in this activity assign a value (positive or negative) to an object; 2) evaluation begins with a specific point of view. It connects some attributes with each other and gives them a normative value. Evaluation is based on a certain kind of psychological standard. 3) A stipulation relation exists between the object, the evaluation, and the psychological standard. This relationship derives from actual activity. The object, the evaluation and the psychological standard are integrated during the activity.

2.1.3 Classification

Several recent studies focus on the classification of irony. These studies did their research according to different standards and values. Booth (1974) used the most diversified standards among those studies. He divided irony into tragic and comic

irony by literary genre, as well as stable and unstable irony by determinacy. He also categorized irony into dramatic irony (e.g. *In Romeo and Juliet, the audience knows that Juliet is only asleep-not dead-but Romeo does not, and he kills himself.*), situational irony (e.g. *Imagine a situation that a lifeguard is saved from drowning*), verbal irony and rhetorical irony by the range of context it has to refer to.

Roberts and Kreuz (1993) identified four types of irony, which are: Socratic irony, dramatic irony, irony of fate, and verbal irony. According to Merriam-Webster Dictionary, Socratic irony is "a pretense of ignorance and of willingness to learn from another assumed in order to make the other's false conceptions conspicuous by adroit questioning" (e.g., *Your parents asking you questions about the weekend they were gone, knowing you held a party.*). Dramatic irony relies on the story of an ironic event. In order to comprehend this kind of irony, people need to know the story behind a work of literature like a novel or play. Besides that, in their definition, the irony of fate is the circumstance in which the audience knows all about the situation or future while the characters in the story know little about it and all their behaviors can't avoid the predetermined fate. It corresponds to the definition of situational irony in Booth's system. (e.g. *The tragic life of the protagonist Kong Yiji in Lu Xun's fiction.*) Meanwhile, verbal irony is the irony that expresses the speakers' attitudes toward people, situations, or objects. People do not have to refer to too much context or background information before they can get the ironic intention.

Besides Kreuz and Roberts' work, Gibbs et. al. (1991) put forward a new category which they called "unintentional irony". This is "an instance of irony is unintentional if the speaker did not intend the utterance to be understood this way". It can be either verbal or situational irony. (e.g. *you originally intend to praise someone by saying, "You are so good." However, for some reason (such as language context or intonation), he/she believes you intend to be ironic.*)

2.1.4 Psycholinguistics hypotheses

From the psycholinguistics angle, different hypotheses were raised. The Standard Pragmatic Model is built on the basis of Conversational Implicature Theory put forward by Grice (1975) and Speech Act Theory raised by Searle (1979). This model considers the cognition of irony as a sequence processing procedure. In any circumstance, the literal meaning of the sentence will be activated first. After that, if the literal meaning is congruous with the context, the processing procedure ends here, otherwise the procedure continues until the literal meaning is suppressed and replaced by the opposite meaning. The Graded Salience Hypothesis raised by Giora (1997, 2003) is also a hypothesis of this kind. However, this theory breaks the dichotomy of "literal meaning" and "non-literal meaning" by seeing the meaning as a continuum from "prominent" to "non-prominent". The familiarity, conventionality, and typicality determine the prominence level of the meaning. Idioms and metaphors, irony does not have a prominent meaning which has been pre-encoded in our mental lexicon, so the prominent meaning will be activated first and the listeners will have to process the prominent meaning before getting the non-prominent ironic meaning.

The Direct Access Hypothesis raised by Gibbs (1986, 1994) considers that the context takes effect at the initial stage when the word is activated. Meanings which are consistent with the context (ironic meaning) will be extracted while the incongruous meaning will not. The Echoic Reminder Theory (Kreuz and Glucksberg, 1989) and Allusional Pretense Theory (Kumon-Nakanura, Glucksberg, and Brown, 1995) support this hypothesis. The first one considers that, by using irony, speakers intend to remind listeners that there are incongruities between their expectations and the facts. By this means, the speakers can express their true attitude. The second one considers that irony is a kind of hypocrisy. The speakers do not want the listeners to believe their speech. When the listeners understand this hypocrisy, they will directly get the real meaning. Gibbs (1986) claims that the time which the reader takes to

comprehend ironic meaning is less than the time he/she takes to comprehend the literal meaning of the same expression. It proves that the listeners/readers do not need to activate the literal meaning first.

The Constraint-Satisfaction Model (Read & Miller, 1998), which is based on connectionist neural networks, considers that the cues and constraints that are activated in the cognition procedure are just like the nodes in the neural network. These factors connect with each other and their activation level is adjusted by each other. When the network achieves a balanced situation, the procedure ends. When it comes to irony, researchers (Pexman, 2008) consider that in the cognition procedure of irony, the discourse itself as well as the cues and constraints are processed simultaneously. If all the cues and constraints lead to an ironic explanation, the procedure ends here. If there are more than one explanation, listeners/readers have to evaluate these explanations and choose the most consistent one.

2.1.5 Irony and sarcasm

Since researchers began to discuss irony, the relationship and differences between these two terms have always been a hot topic. Most of the studies saw sarcasm as a subcategory of irony (Barbe, 1995; Kumon-Nakamura et al., 1995; Leggitt and Gibbs, 2000; Bowes & Katz, 2011). The peculiarity of sarcasm is whether the speakers mean to hurt the listeners. That is, compared with irony, sarcasm is more stinging and hurtful. For example, Kumon-Nakamura et al. (1995) consider that sarcastic irony always expresses a negative attitude and intends to hurt the object it talks about. In comparison, non-sarcastic irony can express either a positive or negative attitude, and it usually does not intend to hurt anyone. Barbe (1995) agreed with the "hurtful" assumption, although she considered that sarcasm and irony are two different concepts. She claimed that sarcasm is a face-threatening action while irony is

a face-saving criticism. Tannen (1984) also claimed that irony may lead to a humorous effect while sarcasm is usually hostile.

Besides that, Lee and Katz (1998) introduced a new reference substance to compare irony and sarcasm: ridicule. They consider that, compared with irony, sarcasm is closer to ridicule. They used variables like the identity of the victim (self or other) and prediction of the outcome (correct or incorrect) in their experiment to support the comparison. The results showed that sarcasm aims at a specific person while irony aims at numerous people. However, Haiman (1998) claimed that "*not all sarcasm involves hostility toward one's actual interlocutor*". The object of the "hostility" can also be "the 'conventional wisdom' or an absent parodied speaker". He considered that another important feature of sarcasm is that the literal meaning of its words is always positive. But he didn't mention his point of view on irony.

Littman and Mey (1991) view this topic from another angle. They consider that "sarcasm cannot exist independently of the communication situation, without its speakers, listeners, and utterances". That is, while there are many different types of ironies, such as verbal, situational, and dramatic ironies, there is only one type of sarcasm, because sarcasm cannot be situational or dramatic.

2.1.6 Other linguistic phenomena related to irony

Some linguistic phenomena share parts of their features with irony. For example, the literal meaning of a metaphor is also different from its contextual meaning. However, since there is a specific mapping relationship between them, the comprehension mechanism of metaphor is easier than irony. Another two phenomena are more familiar with irony. They are *fake news* and *puns*. In fact, under certain

conditions, fake news, puns, and irony all intersect. This section will introduce these two means of expression.

Fake news is a form of news that includes deliberate misinformation or disinformation. Both traditional news media and digital news media may include fake news, but there is no doubt that the popularization of online social media has made it burst. The aims of fake news are usually to damage the target (person or entity) or to earn financial or political benefits. Fake news can be categorized into several kinds:

1) Fabrication

This kind of fake news includes some serious in veracious information. The writers themselves definitely know that the content is not true, but they still write it to increase traffic or profits. For example, tabloids often present unverified news combined with exaggerations or eye-catching headlines. This kind of fake news uses different methods to mislead readers into believing its fabrications. However, the vast majority of them are incapable of causing direct harm to the readers.

2) Hoax

Brunvand (2006) distinguishes hoaxes from pranks or practical joking as "relatively complex and large-scale fabrications" that may include cheating and lead to "material loss or harm to the victim". This kind of fake news convinces readers of the validity of fabrications and can do harm to the people who believe them. For example, some organizations fabricate racial discrimination cases to provoke a war.

3) Dissemination of information

Propaganda is usually used in a political environment. It is an attempt to mislead audiences into believing that a specific political agenda is being promoted. Usually, it

is partially true but exaggerated. For example, during World War I, all the belligerents published a lot of brochures to prove that they were fighting for justice.

4) Parody

Satire is a device in which ironic methods are used to imply the real attitude of the writer toward a certain event. The writers do not intend to mislead the readers. On the contrary, they leave a lot of cues in the content to remind the readers that what they say is not true. Satire can be conceptualized as "a rhetorical strategy (in any medium) that seeks wittily to provoke an emotional and intellectual reaction in an audience on a matter of public concern" (Peter, 2019). It mimics real news but still tells the reader that it is not meant to be taken seriously.

Rashkin et al. (2017) used a figure to show the differences between a hoax, propaganda, and satire. By adding fabrication to the figure, the figure can be as followed:

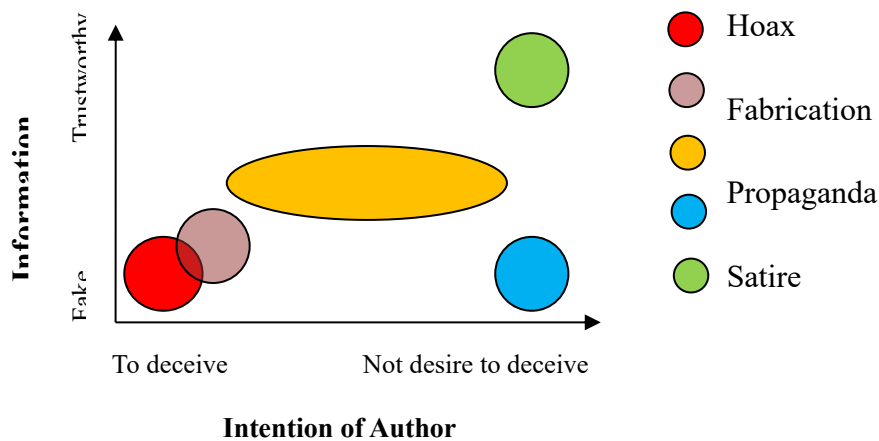


Figure 1. Different kinds of fake news

From the figure, we can see that satire is a very special kind of fake news that does not aim to mislead audiences. It does not express its message plainly and hides its critique with some devices. The nature of it is very close to irony. In order to get a

closer observation of them, we selected some Weibo content from the Weibo account "洋葱故事会" (The Onion Story-telling Session). This is a Chinese account that imitates "The Onion Daily". By using satire, it aims to joke about reality in an ironic way. In this account, several methods are used to make a satire:

1) Opposite pairs: In the context, there is one (or more) pairs of words which have totally conflicting emotional tendencies. For example,

[7] 让我们恭喜这位喜提爱车的倒霉蛋!

Let's congratulate this unfortunate guy who just get his new car!

Here the word "恭喜 (congratulate)" has positive emotion while "倒霉蛋 (unfortunate guy)" is a negative description. The writer uses two totally contradictory descriptions to describe the same object, so at least one part of the expression is not in its literal meaning, otherwise the logic of the sentence can't be self-consistent. This kind of expression is a combination of truth and falsehood, and the false part should be ironic.

2) Satiation: In reversal theory, it means the process which something builds up in strength until it is strong enough, with other factors, to bring about a reversal (Apter, 1984). In satire, writers sometimes deliberately use too many assertive words to confirm the authenticity, which makes the readers begin to doubt the reliability.

[8] 真的是伪满洲国哎! 上面写的好清楚, 真货无疑!

It is really the Puppet Manchukuo! The writing is so clear! It is no doubt the genuine article!

Another strategy which often be used is to use the expressions like "专家称 (experts claim that)", "研究表明 (researches show that)" as the proof of the statement. It also makes the readers doubt the reliability by making it too credible.

3) Misuse of terms: Some terms are only appropriate for certain fields. The meanings of these have strict definitions. Using them in the wrong condition or imitating them to coin nonexistent "terms" can make the expressions ironic. For example,

[9] 我在网上都喊了马云两千声爸爸不止了，我们之间难道不算事实父子吗？

I've called Ma Yun daddy more than 2,000 times online. We are de facto parenthood, aren't we?

"事实婚姻 (de facto marriage)" is a legal terminology which have specific legal definition. According to its phrase formation, the writer coin a new phrase "事实父子 (de facto parenthood)", which make the expression seems ridiculous.

4) Imitation: Authors sometimes imitate some normal statements by just replacing the core parts with their opposite concepts to make a satire. For example,

[10] 不好好玩游戏，你就只能上个清华北大了！

If you can't play computer games well, you have to attend Tsinghua University or Peking University in the future.

5) Analogy: If people can ensure that most parts of the context are fake, even if they have no other evidence to judge the authenticity of the rest, they will tend to make an analogy that the rest are also fake. For example, in the following sentence, "KFG" and "青鸟啤酒" are fake brands, so the readers will judge that the promise of "加薪 (salary increase)" is also fake.

[11] 公司请员工吃了一顿KFG，还喝了很多青鸟啤酒，并承诺加薪。

The company invited the employees to have KFG together and drank a lot of Qing Niao Beer. After that, the company promise a salary increase.

6) Abnormal concepts: Satires can also use obviously fake information (for example, abnormal numbers) to hint the readers that the news and the evaluations are not true.

7) Logic confusion: It is also a frequently-used device to construct a satire. The unreasonable points are the logical relationship in the context. For example, replacement of concepts (or we can call it ambiguity fallacy):

[12] 他们没条件提供浴巾和玻璃杯，因此没有浴巾和杯子的卫生问题；他们甚至很少打扫卫生，因此不存在越打扫越脏的情况。

They don't have the condition to offer bath towels and glasses, so they don't have hygienic problem of bath towels or glasses. They even seldom clean up the room, so they won't make the room dirtier by cleaning.

Here the author replaces the concept "don't have hygienic problem of bath towel (or glass)" with the concept "don't have bath towel (or glass)". It is obviously unreasonable.

Another possibility is there is no relationship between "arguments" and "propositions". For example, in the following sentence, apparently, there is no relation between whether a people wear long johns and whether he is dare to love and hate.

[13] 天冷不穿秋裤，代表一种敢爱敢恨的性格，这是获得真挚爱情的必备素质。

Don't wear long johns in cold weather represent the people is dare to love and hate. This is the essential character of getting true love.

Some other logical errors like circular definition, transfer topic, overgeneralization can also be used in ironic expressions. Writers use these kinds of clumsy errors to leave the cues that they intend to be ironic.

8) Counterfactual statement: Authors use the statements which are obviously

violate the common senses as cues of satires.

[14] 王思聪把面包硬生生往嘴里戳，完全不懂把控咬合和咀嚼的时机与节奏，是因为有钱人如今已经很少亲自吃饭，所以疏于练习。

Wang Si-Cong awkwardly squeeze bread into his mouth and know nothing about how to masticate rhythmically. The reason is nowadays billionaires seldom eat by themselves so they are lack of practice.

The examples above show that satire shares a lot of similarities with irony. Sometimes, satires are built by the use of ironies. We can also get research inspiration for irony from the research on satire as well as fake news. For example, Horne and Adali (2017) used several features to distinguish fake news from the real ones. The features include dominant markers like length of the sentence, part of speech, punctuation, and negations as well as recessive markers like the depth of the syntax tree and sentiment. Rashkin et al. (2017) also gave some features to distinguish fake news from trusted news. Although most of the research aims at automatic detection, it is also a valuable recourse for irony study.

Pun is another kind of linguistic device which shares a lot of similarities with irony. In the Merriam-Webster Dictionary, the definition of "pun" is "the usually humorous use of a word in such a way as to suggest two or more of its meanings or the meaning of another word similar in sound". The Columbia Electronic Encyclopedia gives a more detailed explanation of what a pun is "the use of words, usually humorous, based on (a) the several meanings of one word, (b) the similarity of meaning between words that are pronounced the same, or (c) the difference in meanings between two words pronounced the same and spelled somewhat similarly". 现代汉语词典(2016, p.1222) defines the noun "双关(pun)" as a rhetorical device which uses words to express a meaning literally while secretly implying another one.

Attardo (1994) called puns whose two meanings are expressed by two phonologically similar (but not identical) words "paragraphic puns," while puns whose two meanings are expressed by two phonologically identical words "homonymic puns." Meanwhile, the homonymic puns can be further divided into two subcategories: homophone puns and homograph puns.

Brown (1956) did an earlier classification of puns. He considered that a pun was a form of metaphor. In order to establish a pun, at least two preconditions should be met: people should know the different meanings of the pun words, and context can accept those different meanings of the word. Basing this thought on this thought, he considered that there are eight different types of puns in English. First, puns can be divided into two main categories: puns which appear in contexts whose literal meaning is identical to the pun meaning, and puns which appear in contexts whose literal meaning and pun meaning have a metaphoric relationship. Beneath each category, there are four subcategories whose pun meanings are 1) literal to both the syntax and sense, 2) metaphoric to both, 3) literal to syntax and metaphoric to the sense, and 4) metaphoric to the syntax and literal to the sense.

Although the definitions and classifications have some differences, we can know that the basic feature of a pun is to use one word or two words which are similar in pronunciation to express more than one meaning. It is, to some degree, similar to the function of irony. And besides this, ironies and puns also share the following features (Li et al., 2019):

- 1) Having inconsistencies on multiple linguistic levels;
- 2) Not all listeners will understand everything they say.
- 3) Speakers may inadvertently make an irony or a pun.

4) There are bad ironies/puns like "icy jokes". That is, the expression is so unfunny, non-ironic, or non-punny that it makes the expressions funny, ironic, or punny.

Yet, unlike irony, puns just ask for double entendre. Both (or all) of those different pun meanings can be "contextual meanings" which people really want to express, and these meanings just need to be different from each other, but do not have to be opposite to each other (or, as we will mention in Chapter 3, experience a reversal when comprehending them). For example, the sentence "*The dear leader played the 'trump' card and played it very well.*"

In this sentence, the noun "Trump" is not only a pun but also a metaphor. The basic meaning of it is "card of a suit any of whose cards will win over a card that is not of this suit" (Merriam-Webster Dictionary). It also has two other stable meanings which can refer to "a decisive overriding factor or final resource" or "a dependable and exemplary person" (Merriam-Webster Dictionary). These two meanings are metaphor usages which map the basic meaning "win over" from the card game to the abstract meanings "decisive overriding" or "dependable and exemplary". Although the meanings are different, people can comprehend the metaphor meaning by the mapping relations. In this expression, the most basic meaning of "trump" is hidden while its metaphorical meaning becomes the first meaning of this word. The second meaning of this word comes from the name of Donald Trump. This meaning meets the two preconditions of a pun, which were raised by Brown (1956). First, the name of President Trump is known by the speaker and the listeners. Second, the context can accept this meaning since the subject of this expression is "the dear leader". Therefore, the word "trump" in this sentence is also a pun. This sentence, however, is not necessarily ironic. Only when we can get further context which can prove that the speaker is an opponent of President Trump (or at least, not a supporter of him) can the

sentence be an irony since it expresses a negative attitude towards words like "dear", "trump" and "well".

From this example, we can see that puns and irony have some intersection. In certain contexts, puns can also be ironic. But if the two meanings of a pun do not experience a reversal in the context, it is non-ironic. Meanwhile, irony is not a subset of puns, since having double meanings is not an essential condition for irony. For example, if people use satiation to establish an irony, this irony usually has just one meaning (we will talk about this later).

2.2 Related theories

In this section we will introduce two theories which will constitute the foundation of this thesis. The first one is reversal theory. This is a psychological theory that explains the relationship between arousal level and emotion. In Section 3.1 we will borrow it to reveal the nature of irony. The second one is construction grammar. The theory considers that the so-called "constructions" in language are form-meaning pairs. The contextual meanings of their components are far more complex than simple additions. Based on this thought, in Chapter 5, we will list some constructions which are seen to have higher ironic potential.

2.2.1 Reversal theory

Reversal theory comes from the psychology domain. First raised by Apter (1982), this theory is put forward to explain why and how people experience reversals between different psychological states as well as reflect their motivational style. It is a phenomenological theory in that it is concerned with subjective rather than behavioral processes. It is concerned with the experience of one's own motivation. This point of view is suitable for irony research since the judgment of whether an expression is an

irony also depends on people's (either the speakers' or the listeners') subjective views and motivations.

The basic idea of reversal theory is that there are a number of identifiable and discrete ways of experiencing the world. Every day, we move between these qualitatively different experiential states. Apter (1989) considers that people not only behave in different ways at different times in similar circumstances, but also behave in similar ways in diverse circumstances, and even behave in similar ways at different times with different underlying motivations. That is, we are "*different people at different moments of our lives*".

The different states we experience derive from psychological desires or values. Most of them go in pairs of opposites. It means that, at a certain moment, in a pair of states, just one of them can be "operative". When we experience a state switch from one member of the pair to another, since the two states are opposite, Apter (1989) calls this switch a "reversal".

Potocky and Murgatroyd (1993) conclude that people's subjective experiences are bistable. It means that for one phenomenological dimension, people have two steady states which are opposite to each other. Switches, or what they called "reversals", often occur between them. They will result in people feeling either pleasant (excitement) or unpleasant (anxiety) when they experience an arousal.

Apter (1984) categorized the factors which may facilitate reversals into three main kinds. The first one is contingent events. " That is, the occurrence of an external or internal stimulus. It is a very broad category which can range from small social cues (like frowning and smiling) to serious physical danger. All these cues or contexts can lead to the "reverse" between opposite states. The second category is frustration. That is, not being able to attain satisfaction in the current state. When the frustration is strong enough, it will make people turn to an opposite psychological state. The third

category is satiation. Which means, after people spend a certain length of time in one state, they eventually reverse to the other state, even in the absence of frustration or contingency factors.

Some researchers have introduced the concept of "reversal" into irony study. For example, Sinclair (2004) raised the concept of "semantic reversal" as a cue of ironic expression as a cue of ironic expression. He claims that people need to highly rely on the surrounding text to get the precise meaning of a word. And the verbal environment may create a semantically reversed meaning for the word. However, he considered that the "semantic reversal" could not surely detect all the irony since there could be other kinds of alternative interpretations of the ironic meaning. Partington (2007) claimed that, according to the observation of data, the activation mechanism of all irony is the reversal of evaluative meaning. In Dynel's (2014) classification, there is a kind of irony called "ideatal reversal irony." It is a kind whose real meaning is the negation of part of the literal meaning. These are valuable references to our research.

2.2.2 Construction Grammar

The theories of construction grammar rose in the 1980s. After 30 years of development, it has formed a mature theoretical system. Among them, theories raised by Lakoff, Fillmore & Kay and Goldberg are most representative and widespread.

The origin of construction grammar can be traced back to Lakoff's book: *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind* (Lakoff, 1987). In this book, he considered that constructions are form-meaning pairs. In the pair, "form" is a series of syntactic and phonological conditions while "meaning" is a series of meaning and use conditions. Lexis and grammar are a continuum instead of a black-and-white relationship. Meanwhile, grammar is independent. It is a complex module which is based on semantics and also contains pragmatic features. It means that we cannot explain grammar without understanding the meaning of the expression.

Lakoff considered that the formation of construction had to depend on meaning. This formation procedure can be derivated from syntax and semantic rules. It requires us to focus on both the form parameter (like syntactic constituent, syntactic condition, lexical constituent and phonological conditions) and the meaning parameter (basic meaning and context meaning). This theory sees construction as a gestalt which contains features and functions from different linguistic levels. It emphasizes that construction is the basic unit of language instead of a secondary product.

Fillmore and Kay consider that there is a kind of complex and special language structures which are similar to "idioms" in traditional linguistic theories. These structures have unique grammatical, semantic and pragmatic features. However, these features can not be derivated from general grammatical, semantic, or pragmatic regulations. Meanwhile, the semantic and pragmatic functions of a construction cannot be derivated from the functions of its components. Fillmore et al. (1988) call this phenomena "idiomaticity". That is, according to some conventional rules, a certain expression can be understood in a specific linguistic community, but people outside the linguistic community cannot learn the complete meanings and functions of this expression from general linguistic rules.

In Fillmore's theory, information at grammatical, semantic, and pragmatic levels can interact with each other. Our language integrates all the information and forms a complex "configuration". Like Lakoff, Fillmore and Kay also emphasize the non-modularity of construction. They claim that form and meaning are not two different modules. Meanwhile, any pragmatic information will be conventionally linked with specific linguistic form (s), making them both grammar and construction components.

Another important point of view raised by Fillmore and Kay is that they are monostratal and non-derived. They claimed that only when there is a complete set of constructions or rules in the language which can simultaneously produce the

surface form and the exact meaning of a sentence, this sentence is legal. There is no transformational relation between two forms. This theory suggests that even though a grammatical construction departs from its components, it still has its meaning. This idea is very important to the development of construction grammar.

The most widely accepted theory of construction grammar is raised by Goldberg. In the book which is seen as the foundation of her grammar theory, *Constructions: A Construction Grammar Approach to Argument Structure* (1995), she also defines construction as the pair of form and semantic function. In latter studies, she further explained this concept:

"Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency."

--Constructions at Work: The Nature of Generalization in Language (Goldberg, 2006)

She considered that the core of the construction is the lack of "predictability". It is obvious that this definition is very broad. It not only includes words and idioms, but also some grammatical structures like ditransitive constructions and passive voice. This is a radical theory which really sees construction as a basic unit of language (it contains morphemes, words, phrases, and sentences). She emphasized the concept that the whole is greater than the sum of the parts. Besides that, she also claimed that construction is a complex network system which contains not only the rule-driven parts but also the conventionality parts.

2.3 Applied studies of irony

Applied studies of irony mainly focus on constructing database (corpus studies)

and automatically detecting them (computational linguistics studies).

2.3.1 Corpus Studies

Some corpus-based studies of irony have been done by researchers. According to the observation of corpus, Claridge (2001) claimed that irony can emerge from different linguistic levels and it depends on not only the speakers' intention but also the listeners' comprehension. Partington et al. (2013) use laughter as a basic standard to detect ironic examples. And they also take intensification and evaluation reversal into consideration. They finally focused on 26 implicit ironies and analyzed the features of them.

Besides that, Laszlo (2015) tries to find the common patterns of irony (as well as sarcasm) and uses them to extract more expressions in a large-scale corpus. She came up with a new method to analyze this topic that highly combines lexical and grammatical features with emotional and pragmatic usages. She finds 15 core evaluative words and describes their collocation and distribution conditions from 8000 tweets with the hashtags "# irony," "# sarcasm," or "# not." They are: love (verb), great (adjective), fun (noun/adjective), nice (adjective), excited (adjective), glad (adjective), happy (adjective), can't wait (verb phrase), hope (verb), interesting (adjective), amazing (adjective), appreciated (verb), funny (adjective), hate (verb) and exciting (adjective). It shows that irony and sarcasm are, at least to some degree, distinguishable through lexis and certain patterns. And certain keywords can generate more grammatical patterns than others. Basing on this assumption, she generates patterns from the core evaluative words above. For example, when the word "love" is in the pattern "NP + would/ 'd/ wouldn't + love", it is highly possible to be an ironic expression.

However, as we mentioned, most of the irony research focuses on English, and because of a lack of research, few Chinese irony corpuses are built. Tang and Chen (2014) tried to build a Chinese irony corpus automatically. Until now, it is still the

only corpus that focuses just on Chinese ironies. They argue that although irony can be used without any customary linguistic patterns, some ironic expressions do exhibit specific forms of language use. For example, in the expression "我真是太幸运啦! (I am really extremely lucky!)", the adverbs "really" and "extremely" are used to strengthen the ironic effect. Basing on this hypothesis, they automatically find 2,825 messages from an emotion-tagged corpus whose data is collected from Plurk and 1,005 of them are confirmed to be ironic and make up the Irony Corpus. They claim that these 1,005 messages can be divided into the five groups by the special structures they contain: 1) contain the structure "Degree Adverbs + Positive Adjective" (e.g. "真是好(definitely really good)"); 2) contain positive adjective with high intensity (e.g. superlatives like greatest, and high degree adjectives like perfect); 3) contain positive noun with high intensity (e.g. "大礼(big gift)"); 4) contain the phrase "很好(very good)"; 5) contain the structure "可以再+ X (a negative statement) + 一点 (It's okay to be worse)".

It is a good try which points out that construction (although they didn't use this concept in the paper) is the key to expressing verbal irony. The snowballing method they used to roughly locate ironic expressions in large corpora is also referentially valuable. However, from the groups they categorized, we can find that the diversity of their corpus is too limited. That is, the "constructions" they considered are too limited. Besides that, they also did not explore the linguistic motivations beneath these structures.

Some other related Chinese corpora were also built by researchers. For example, Li, Ge, and Liu (2016) constructed a parallel corpus which contains 90 million characters/words from Chinese humor novels from different periods. They annotated the rhetorical devices each piece used. "Irony" is one of the rhetorical devices they took into consideration. Besides that, Ren et al. (2018) constructed a Chinese joke corpus which contains 33,025 Chinese jokes. Among these jokes, 5493 are tagged

with sarcasm and 570 are tagged with irony. All the contents are annotated with syntactic features and emotional features. Another related work is reported by Yin (2016). She built a Chinese irony corpus which contains 571 ironic sentences. She categorized those sentences into seven groups and did research on the antonym pairs in these sentences in order to find a possible rephrasing method for irony. However, all of these corpora do not have a public version for reference. Especially for the first two corpora, since the research did not focus on irony, they did not even explicate what "irony" meant in their definition. As a result, corpus recourse for Chinese irony is severely limited.

2.3.2 Computational linguistic approaches

The computational linguistic studies of irony can be traced back to Littman and Mey's (1991) study. They thought that the core topic of automatic detection of irony should be 1) distinguish ironic and non-ironic statements; 2) find out the reasons why a certain situation is ironic or not; 3) give descriptions of ironic situations. The tasks seem brief, but until now they have remained unresolved. Claridge (2001) pointed out that the biggest problem is that irony (as well as sarcasm) is a kind of linguistic phenomenon that lacks corresponding surface structures. Linguistic phenomena of this kind are hard to be detected automatically.

After 2005, with the rise of computational linguistics, more and more researchers tried to use machine learning methods to detect irony. Several researchers have tried to detect verbal ironies automatically (Kreuz and Caucci, 2007; Carvalho et al., 2009; Filatova, 2012; Reyes, Rosso, and Veale, 2013; Reyes and Rosso, 2014; Buschmeier, Cimiano, and Klinger, 2014). Littman and Mey (1991) even came up with a method to automatically analyze and capture the features of situational irony. Most of this research heavily relies on statistical models to find examples. Feature extraction, classifiers, bootstrapping, and semi-supervised systems are all used in irony detection.

For example, Tsur, Davidov, and Rappoport (2010) mainly used the k-nearest neighbor strategy combined with some simple linguistic patterns to detect ironies. Reyes, Rosso, and Veale (2013) relied on signatures, unexpectedness, emotional scenarios, and style features to classify ironic and non-ironic statements. Ling and Klinger (2016) took word-specific features into consideration to find the differences between irony and sarcasm, which gives a new thought to irony detection. We can also find that the features they took into consideration can be categorized into these classes: 1) opposite pairs, such as antonyms and words with opposing sentiments; 2) punctuations: quotation marks, exclamation marks, question marks, ellipses and so on; 3) emoticons and interjections; 4) counter-factuality marks, such as *about*, *nevertheless*, *nonetheless*, or *yet* in English; 5) Hyperbole, which is expressed as a series of positive or negative words. Deng, Jia, and Chen (2015) introduced some other features like homophonic words and passive voice, which can aim at Chinese expressions, but the core methodology is also the same as in other research.

We can see that all these features are simple and prominent structures, and most of them are non-lexical units or just one single word. These features are no doubt very convenient for computers to detect, but to what extent we can rely on them (especially, to what extent they may miss a lot of typical ironic statements) should be questioned. If we just rely on common computational linguistics methods, computers will face big difficulties in dealing with abstract and pragmatic linguistic phenomena like irony.

2.4 Conclusion

To summarize, research on irony has involved a lot of topics.

Grice's (1975) definition, which is based on "contradictory," represents people's general cognition of irony, while Sperber and Wilson's (1986, 2012) papers put forward the Relevance Theory and the "echoic" concept. Compared with Grice's idea, Sperber and Wilson's theory takes people's subjective intention into consideration and

can explain more particular irony cases. However, both of these two theories do not reveal the nature of irony. Therefore, in Chapter 3, we will introduce a new concept to define it. This new definition is based on the Reversal Theory, which we have introduced in Section 2.2.1.

Linguistic features and the classification of irony are also topics we want to pay attention to. We find that the existing classification methods mainly classify irony instances by the range of contexts they have to refer to. All of them classify "verbal irony" as an independent category, but few of them subdivide it. Hence, it is also an important work this thesis wants to do.

To solve the problem of lacking Chinese irony materials, we also do a corpus study. Basing on Tang and Chen's (2014) method, we built a new Chinese irony corpus which contains much more multiple instances. We hope this corpus can help researchers to enhance the performance of natural language processing tasks.

Chapter 3 Methodology

This chapter will define irony in our research and outline the scope of this thesis's research. Assuming that reversal is the primary characteristic of irony, we shall analyze the various types of reversals that might occur in ironic expressions. Apart from that, the chapter's primary focus is on the establishment of a systematic and standardized procedure for determining irony, dubbed the Irony Identification Procedure (IIP). Meanwhile, we will introduce the method we utilize, which is corpus-based, as well as the language resources in our corpus.

3.1 The definition of irony

As noted in the last chapter, the definition of irony has not reached a finality. Grice (1975) first proposed the concept of irony as a phrase whose true meaning is the inverse of its literal meaning. Later studies established that this conflict does not have to be between real and literal meanings, as certain expressions do not contain any reference to "literal meaning." They considered non-propositional irony and then asserted that the contradiction can also demonstrate a connection between the true meaning and the language environment or presupposition. Sperber and Wilson (1986) then introduced the now-famous "echoic" idea into their Relevance Theory, arguing that people occasionally purposefully disassociate themselves from literal utterances by simply echoing another's thought. Ironic is this "echoic use" only when it is incongruous in some sense. The "echoic" idea is the most frequently accepted definition of irony, and subsequent work in both neurocognitive and computational research considers the "incongruity" in the setting to be the essence of irony. The approach based on incongruity is also found in linguistic study. All researchers are concentrating their efforts on identifying these incongruities.

However, incongruity is not a necessary prerequisite for irony. The following statement is an extreme example:

[15] *Ironically, irony won't be used in writing this paper.*

Strictly speaking, there is no incongruity or reversal of meaning in this sentence. Indeed, one could argue that the statement and its constituent parts both convey literal meaning. However, as plainly stated, it is definitely ironic. Indeed, there is contradiction, as the statement itself establishes the falsity of the argument. However, its literal meaning is preserved in some way. This is not only a direct refutation of the neo-Gricean account of reversed meaning, but also a challenge to the incongruity-based theory, as the phenomena is unquestionably more than incongruity.

Additionally, it is commonly recognized that satiation can be used to achieve irony. That is, "too much of the good" can devolve into bad. When many intensifiers or hyperboles are employed in a sentence, the expression may be interpreted as ironic. There is also no incongruity in this circumstance. Meanwhile, numerous other linguistic strategies, such as puns, metaphors, and deception, exhibit incongruity between literal meaning and actuality. Thus, the terms "echoic" and "incongruity" encompass a vast range of concepts.

We believe that irony is not defined by reversal of meaning or incongruity in echoic applications, but both are unavoidably involved. Indeed, what is critical is that a speaker employs irony for the purpose of reversal, disassociating, or giving an antithesis to specific meanings or positions in context, as Sperber and Wilson (1981) and Wilson (2006) have already observed. To distinguish irony from other linguistic devices and to account for the possibility of overtly literal ironic expressions such as [15], Huang (2019) proposed that the true critical nature of irony is "reversal," and that both reversed meaning and echoic uses are merely tools for achieving reversal. Interestingly, Apter's (1984) psychological theory of reversal classified both contextually reversed meaning and satiation as reversal devices.

The introduction of reversal theory is an unquestionably novel suggestion. In comparison to the "echoic" and "incongruity" notions, it is more appropriate for irony

because it is concerned with the processes that the speakers/listeners experience as well as the circumstances that trigger those processes. That is, by employing the notion of reversal, we may perceive irony as a psychological activity as well as a linguistic manifestation. Meanwhile, the reversal hypothesis is more focused, as other linguistic devices (e.g., pun, metaphor) do not require this procedure.

Additionally, we can account for [15] using this theory. Although the sentence and its constituent words express their literal meanings, the ironic intention emerges from the psychological divide between people's presuppositions (a research on irony should include ironic statements) and the statement's reality (irony will not be used in writing this paper). It is, according to Apter's (1984) notion, a form of frustration. Because readers' expectations are unsatisfied, they shift to an opposite psychological state, where irony occurs.

In this thesis, we will examine the linguistic presentation of reversal in reversal to propose a set of criteria for identifying irony.

Another issues we should state is that the research scope of this research focus on verbal irony. Different from situational irony and dramatic irony, verbal irony is produced intentionally by speakers. Speakers use this kind of statements to express their attitudes and the ironic intentions are in the statements themselves instead of the whole story (dramatic irony) or the unequal condition between audiences and people in the events (situational irony). We choose verbal irony as our research object since it is relatively definite and dominant. Since it is produced intentionally by speakers, the judgments of whether an expression is irony or not will not be that variable. Listeners / readers also do not need to refer to too much context to get the ironic intention. In the following content, without additional explanation, the term "irony" means verbal irony in this thesis.

3.2 Different kinds of reversals in irony

We believe that reversal is the critical aspect of irony. Additionally, we are interested in the characteristics of these reversals. Apter (1984) asserted that reversals might be triggered by three types of factors: external/internal stimuli, frustration, and satiation. Indeed, irony reversals contain significantly more than these three categories.

To begin, from a psycholinguistic perspective, Apter's three elements can result in more than three distinct types of reversals. External or internal stimuli might cause a shift in sentiment and/or evaluation state. Frustration occurs when people's expectations are not met. It has the potential to alter people's state of desire. Additionally, it will result in the reversal of opposite sentiment states. Satiation is a unique factor, which is why we categorize it as a distinct category.

Then, from a linguistic perspective, we observe that rhetorical questions are frequently utilized to convey ironic purpose. When speakers/writers employ rhetorical questions, they already have "answers" before they "ask." As a result, it's unsurprising that they are frequently used to suggest reproachful intentions, such as "why you don't know..." or "why you disagree with me." This is another technique for causing reversals.

On a semantic level, juxtaposing semantically opposed words in a single context is a straightforward way to induce reversals. Contextual semantic problems can readily result in transitions between distinct psychological states. Additionally, a statement that manifestly contradicts an object fact is a form of implicit semantic conflict. Additionally, it can result in a state transfer.

On a pragmatic level, when people employ particular expressions inappropriately (in terms of style, register, surroundings, or relationship), it frequently results in an imbalance in the comprehension procedure, which ultimately results in reversals.

3.2.1 Rhetorical Reversal

This section is mostly concerned with "questions." Among the several types of questions, rhetorical questions are the ones that are most likely to be ironic. In Chinese, rhetorical inquiries can be formed in at least three distinct ways:

- An declarative sentence followed by a tag question with the verb"是(be)" or verb phrase "不是(be not)" followed by a question particle "吗(ma)". Note that the tag question can be either reversed or identical polarity. Tag question with reversed polarity (vs. the main predicate) typically carry stronger irony but tag question with identical polarity can also be irony.

[16] 你一直相信川普, 是吗 / 不是吗?

You've always believed in Trump, aren't you?

- Adding emphasis with wh-words on manner/degree. Thus on surface it can be interpreted as a question on the manner/degree of an event established in discourse. Yet as the information is given, no additional information is sought since the speakers have already had determined judgment. So that the question is used rhetorically.

[17] 这种电影有什么好看的?

What is the value of watching this kind of movie?

- Repetition of a interrogative sentence. Apart from changing the intonation, repeatedly asking the same question can also transform an interrogative sentence into a rhetorical query.

[18] 你相信吗? 你相信吗?

Do you believe? Do you believe?

Certain statements in the first two types of rhetorical questions, we believe,

should be classified as rhetorical reversals, as the reversals come from the substance of the question. We categorize the third type as satiation reversal and shall analyze it further in 3.2.7, because the speaker's true meaning is expressed through repetition rather than through the inquiry itself. In essence, it is the redundancy of information that causes the reversal.

Apart from rhetorical inquiries, continual questions can also result in rhetorical reversal in specific contexts. A string of sequential interrogative sentences can make the entire text ironic, even if none of the individual sentences are ironic.

[19] 为什么我要相信你? 为什么我必须要立刻赶回来? 为什么你可以命令我?

Why I have to trust you? Why I have to go back immediately? Why you can order me?

Each inquiry in the preceding example is an interrogative statement. When we read them separately, we discover that the content contains little ironic purpose. When they appear in succession, however, people's psychological states revert: the speaker attempts to use these questions to display his or her unfavorable attitude toward the listener as well as to reject the listener's commands. This is another illustration of how irony's nature is "reversal" rather than "incongruity." Both the literal and contextual meanings of this remark are that the speaker interrogates the listener on why he/she must comply with the listener's requirement. There is no "incongruity" in this instance. However, irony is produced when a change in psychological state occurs.

These "continuous queries" may also be rhetorical or a hybrid of the two. The unit of analysis in this case is no longer a single full sentence but a series of continuous sentences. The distinction between "continuous questions" and "repetition of an interrogative sentence (which is classified as satiation reversal)" is that "continuous questions" contain no redundant information. Each of these questions adds fresh information, demonstrating that the reversal occurs not because "people

spend a specific amount of time in a single state" (Apter, 1984).

Another type of rhetorical reversal occurs when the speaker has already received a subjectively affirmed answer to a query. They should be classified as interrogative sentences on a grammatical level. On a semantic and pragmatic level, however, because both speakers and listeners agree that the speakers are not seeking an answer, they are considerably closer to a rhetorical question. For example:

[20] 你不同意也没用，你算老几？

It is no use that you disagree with it. Who are you? (or "What is your order?" in literal meaning)

In this item, the question "*Who are you? (or 'What is your order?')*" is an interrogative sentence. The literal meaning of it is to ask the identity (or the ranking) of the listener. However, from the context we can know that the speaker is not seeking for an answer from the listener. In his/ her presupposition, the listener do not have any status. By using this interrogation, he/ she just intend to taunt the listener. When the listener get this taunting intention, the reversal happens. However, an interesting fact is, this kind of interrogation can be not ironic at all in other context. For example, if the speaker asks a people who has more than one brother or sister in his / her family:

[21] 你在家算老几？

What is your order in your family?

It is a fully non-ironic expression that is simply seeking an answer in this circumstance. Another case is that, in the ironic use of this type of inquiry, regardless of whether the listener understands the speaker's ironic goal, he or she can respond to this "rhetorical-like" question in the same manner they would respond to a normal interrogation. And then, without a doubt, this response will accentuate the ironic tone of the entire debate. Image the following conversation:

[22] A: 你不同意也没用，你排老几？

B: 老大啊。

A: *It is no use that you disagree with it. What is your order?*

B: *I'm the first.*

Whether or not Speaker B understands Speaker A's taunting aim, this exchange could not be more ironic, despite the fact that all of the lines may be understood in their literal meanings.

In conclusion, rhetorical reversal is a broad category comprised of various types of "questions." It is divided into three subcategories.

1) Rhetorical questions: This is the most representative subcategory, which is why this category is titled "rhetorical";

2) Continuous questions: Each individual question in the sequence may be non-ironic, but the sequence as a whole conveys an ironic attitude. The chain of inquiries might be interrogational or rhetorical in nature.

3) Interrogative-style questions: This type of question takes the shape of an interrogation. And they can indeed be interpreted interrogatively in the appropriate context. However, they are more frequently used when speakers already have a subjectively confirmed response in mind and are not seeking clarification. They are far more akin to rhetorical questions in terms of usage, which is why we refer to them as rhetorical-like inquiries.

3.2.2 Expectation Reversal

This category is primarily made up of imperative sentences and other sentence patterns that include specific requirements. As is commonly understood, imperative sentences are expressions used to transmit people's urgent requests or commands to others. These requests or instructions can be interpreted as the speakers' expectations.

However, when the speakers' true expectations diverge from the expectations conveyed by the literal meanings of their remarks, reversals occur.

This type of reversal is classified into two subcategories. The first is a reversal of the expectation between literal and subjective expectation. This subcategory is more easily comprehended. Speakers make a direct request of their listeners in these types of imperative statements. However, the speakers do not truly want the listeners to do so, or they perceive subjectively that the listeners are unable (or unwilling) to do so.

Imperative sentences, such as dares, are typical examples of this type. They are ironic in that the speakers intend for the listener to recoil and refrain from doing what he or she is dared to do. For instance,

[23] 你敢! 有本事就别回来!

How dare you! Don't come back if you can!

It is an imperative sentence in which the speaker requests that the listener not return. However, it is a threat that implies the subtext that if "you" indeed dare to do so, serious consequences will follow. To a certain extent, it is also a form of persuasion that attempts to retain the listener. The incongruity between the request and the speaker's subjective expectation results in the reversal. These statements make use of certain formulations (which will be described in Chapter 4) to convey the speakers' genuine expectations. Even without additional context, we can infer the speakers' true intents from these constructions.

The second subcategory is reversal of expectation between literal and objective. Occasionally, without context or a precise construction, we cannot discern the speaker's true expectation directly. However, because the imperative's content deviates from common sense, it retains its ironic purpose. That is, it is improbable that someone would desire others to do this (e.g. beat me, insult me, kill me). The reversal

is caused by the incongruity between the request and the objective common expectation. For instance,

[24] 来咬我啊!

Come to bite me!

Without using any particular structure, if we replace the word "咬(bite)" with a variety of other verbs such as "追(chase)", "找(find)", or even "救(save)", because we lack context, people tend to regard the term as non-ironic. However, when the verb "咬(bite)", "打(beat)", or "羞辱(insult)" is used, the term is substantially more likely to be interpreted as ironic. This is because the imperative violates common sense, leading listeners / readers to believe that it is not a genuine expectation. Indeed, while the form "来 + verb + pronoun + 啊"(come to + verb + pronoun) is a basic phrase pattern with few expanded meanings, the frequent use of "来咬我啊(come to bite me)" in cyber language has progressively evolved this concrete structure into a construction. Its constructional significance is that it is a form of provocation. This means that no one may harm the speaker. However, because other comparable statements such as "来打/羞辱我啊/(come to beat/insult me)" are less concrete, we continue to define these expressions as reversal of objective expectation.

3.2.3 Evaluation Reversal

This type of reversal is not caused by a particular sentence pattern (such as question or imperative sentence). It is more semantic in nature, as the reversals occur inside the evaluation contents. Additionally, it has three subcategories.

The first type of evaluation is a direct opposite evaluation. Expressions in this category may contain explicit evaluative terms that express the speakers' opinions explicitly. These can be adjectives such as "好(excellent)" and "厉害(amazing)" or adverbs such as "亏(fortunately)". Sometimes speakers convey their opinions in other

ways, but the common denominator is that evaluations are stated directly in the material. When speakers' incongruous evaluations contradict their literal words, this incongruity results in the reversals. For instance,

[25] 这下好了, 一大票子人失业了!

Now it is good! A lot of people lose their jobs!

[26] 提这种要求, 你也真好意思!

You really have the nerve to put forward this requirement!

In example [25], the speaker employs the adjectival phrase "好(excellent)" explicitly in the construction "这下好了(now it is good)". In its literal sense, this statement should convey a favorable attitude toward the object. In [26], the expression does not directly refer to the item using evaluative terms. However, the term contains the literally positive phrase "好意思(have the nerve to)" which serves as the literal evaluation of the expression. Nonetheless, we can infer from the context that the subjects of these statements are, without a doubt, heinous conditions or unreasonable requirements that deserve negative evaluation. The disjunction between the literal evaluation contained in the phrase and the speaker's actual evaluation (which listeners/readers can glean from context or common sense) results in the reversal of various psychological states.

Indirect opposite evaluation is the second subcategory. Ironies of this type do not contain evaluative terms such as adjectives or adverbs. They also do not state the speakers' evaluations of the things in any other way, from a literal standpoint. They do, however, include noun phrases that have widely accepted social evaluations/expectations or "stereotypes." The reversal occurs as a result of the polar opposites between social assessments/expectations and reality (or the speakers' subjective evaluations that are not explicitly mentioned in the expression).

[27] 大学生就这样呢!

It is what an undergraduate like!

Literally, this expression conveys no explicit evaluation. However, social perceptions of the "undergraduate" identity suggest that they should be courteous and knowledgeable (at least compare with people who are not undergraduates). Whether or whether these social judgments are true, when individuals with this identification are unable to reach these social assessments or the speaker's subjective expectation, they utilize this type of language to implicitly express their evaluation. In contrast to the first type, the opposite is indirect, as there is no evaluative word in the text.

Apart from the two subcategories mentioned previously, another instance is evaluation omission. On a linguistic level, this type of irony is both incomplete and illegal. The speakers purposefully omit the statement's evaluation portion. However, by employing specific constructs, listeners can quickly deduce the speakers' true intentions. The omission of the evaluation conveys the speakers' displeasure euphemistically but also heightens the expression's ironic intensity. This type of evaluation is employed to convey unfavorable evaluations, as people rarely need to be euphemistic when expressing their accolades.

[28] 这事儿办得!

This affair is done (missing of an adverb)!

Although we can say "this affair is done" in English, in Chinese, the expression "这事儿办得" is incomplete. We have to add an adverb at the end of this expression, like "这事儿办得好(this affair is well-done)" or "这事儿办得糟(this affair is done badly)". By omitting evaluative words, speaker shows his/her negative evaluation to the object as well as disappointment that he/she can do nothing but accept the reality.

3.2.4 Reversal of sentiment

This type of reversal occurs when words associated with positive emotions are used to communicate negative emotions, and vice versa. Sentiment is a psychological notion. As a result, there is little question that switching between distinct forms of sentiment will result in reversal.

[29] 感谢设计师, 我摔得很结实……

Thanks to the designer, I fall down heavily...

[30] 我要拜服黑方老大, 好好一盘棋走成这样。

I greatly admire the boss of the black, who can lead a game of chess to this result.

Positive sentimental expressions such as "thank," "admire," and "praise" are frequently used in irony to convey unpleasant emotions. Although negative emotions such as "hatred" or "disappointed" can be used to describe pleasant emotions, the former is more prevalent. Indeed, as with all ironic statements, negative contextual attitudes predominate. This will be discussed in Chapter 5.

Apart from sentiment words, utilizing emoticons and modal particles also falls under this category, as their functions are to express sentiments. However, because there is no standard "definition" for emoticons that defines their original (literal) sentiment, we must classify them as "Other devices" and view them as supplemental ways. This category includes modal particles. Their reversal mechanism is comparable to that of emotion words.

[31] 呵呵, 你能拿我怎样。

Hoho, what can you do to me?

In Chinese, modal particles such as "呵呵(hoho)", "噗(pu)", and "哟嚯(yoho)" originally expressed good sentiment. The first two are onomatopoeic terms for

laughter and titter, respectively, while the third can convey surprise and excitement. However, they are increasingly being utilized to convey ironic intents. In cyber language (particularly among the youth group), the term "(hoho)" is virtually an overt ironic mark that can even turn a non-ironic sentence ironic. However, in the majority of cases, modal particles must be combined with other devices to generate irony.

3.2.5 Reversal of factuality

The most well-known ironic counterfactual construction in Chinese is "太阳从西边出来 (sun rise from west)". By asserting an obviously erroneous notion, people are implying that something is completely impossible. Contraventions of objective reality, public perception, or contextual information may perplex listeners/readers. This misconception may also occur when the statement contains an exaggerated exaggeration of reality. It will create an imbalance in the minds of listeners, as the statement is nonsensical. To reach rationality, listeners will begin to mistrust the speaker's true meaning. Then, during this process, the reversal will occur.

[32] 原来我家在一环旁边，难怪整天安静得让我睡不着觉。

So my home is next to the first ring road. No wonder it is so quiet all day long that make me can't fall asleep.

[33] 央视？就是那个专门播肥皂剧的台吗？

CCTV? Is that the channel that specialized in broadcasting soap operas?

Two counterfactual points are included in Example [32]. To begin, the first ring road should be located downtown, so that it is not completely silent throughout the day. Second, in general, a peaceful setting will not prevent people from falling asleep. Without any clarification, listeners/readers will discover that this remark contradicts their preconceived notion of "the home adjacent to the first ring road." Then the

reversal occurs. For Example [33], the official station of China and the Chinese government is described as "the channel that specializes in broadcasting soap operas." Additionally, it is an overt ironic term implying that this channel is not as legitimate or professional as it appears.

Not only can counterfactual statements result in factual reversal. A fascinating fact is that, in certain contexts, true remarks can also confuse the listener, resulting in an ironic linguistic environment. This is the second subtype of "reversal of factuality": the erroneous assertion of an objective fact. The speaker uses this type of language to state an objective fact or well-known event without providing context. These types of utterances are so strange that we can clearly deduce that the speakers are not attempting to communicate the facts directly but rather are satirizing the fact that someone appears to be unaware of these well-known truths.

[34] 大清亡了! *The Qing Dynasty has died!*

[35] 醒醒! 2019 年了! *Wake up! It is 2019!*

Both of these statements are constructed in cyber language. They all imply the same thing: the speaker believes the listener's behaviors or views are too traditional or even feudal, giving the impression that the listener is not a member of contemporary society. The statements make no use of additional devices and simply state an objective fact. However, because the facts themselves bear no relationship to the context, they remain irrational in this instance, even if the claim including them is accurate.

3.2.6 Relationship reversal

When an honorific or intimate salutation is used to communicate a negative

attitude, relationship reversal occurs. Individuals occasionally employ inappropriate honorific or intimate salutations that appear unusual in context. As is customary in everyday situations, we utilize honorific to demonstrate our deference while using personal salutation to strengthen the bond. However, if the context is unkind to the listeners, the reversal will occur as a result of this mismatch. Here, those specific salutations serve to alienate rather than strengthen the bond between speakers and listeners (through the use of a mocking tone). This usage violates the general functions of such salutations, resulting in the formation of ironic connotations.

[36] 亲, 您真是我见过的最恶心的客户呢!

Dear, you're really the most disgusting client I've ever seen!

By employing the salutation "dear," merchants are typically attempting to develop an intimate bond with their clientele in order to facilitate business transactions. However, based on the context, we can deduce that the speaker has no intention of accomplishing this goal because he/she wishes to harm the customer. As a result, this untimely "dear" takes on the role of irony, and the entire remark becomes ironic.

3.2.7 Reversal from opposite pair

Apart from abstract reversals that conceal their true attitudes inside extended meanings, ironies involving opposite pairs openly convey the reversal of meaning in a linguistic context by demonstrating their direct opposition. For instance,

[37] 真新闻有时是假新闻, 假新闻有时是真新闻, 这就是中国。

*Real news sometimes can be fake news. Fake news sometimes can be real news.
This is China.*

In this statement, "fake news" and "genuine news" are opposite opposites. By

asserting that these two diametrically opposed conceptions can morph into one another, the speaker creates an absurd situation. In these contradictory facts, reversal occurs. Both premises (a. Real news can be fake news. b. Fake news can be real news.) are true in this statement, and their contextual meanings are identical to their literal meanings. Nonetheless, the sentence is ironic. This is another evidence for our notion that irony can be generated without "incongruity," but it must contain a reversal.

3.2.8 Reversal from satiation

As previously stated, satiation is one of the reversal triggers. After a sufficiently extended period of time in one state, people tend to revert to the reversed state. It is one of reversal theory's most significant contributions. Thus, reversal from satiation is also one of the most compelling arguments for the existence of "reversal" as the true essence of irony.

Additionally, this type of reversal has two subcategories. The first, and most prevalent, is redundancy of information. This type is characterized by repetition. Due to the fact that individuals must consider the efficiency of language, they often avoid using too many comparable expressions to describe a single item, as the information transmitted by these expressions is redundant. When people do this on purpose, the reversal occurs.

The term "repetition" in this context refers to the act of repeating the same content (e.g., repetition of a query (as in example [18]) or an aggressive sentence (as in example [38]), for example.

[38] 我该放弃了, 该放弃了。

I should give up, should give up.

or the repetition of synonyms, for example,

[39] 确实是她的原话, 真的, 我作证。

It is indeed her original words. It's true. I testify it.

In the above example [18], the expression "Do you believe?" is an interrogative sentence that often anticipates a response such as "yes" or "no." Repeating it twice or more weakens the interrogative intention. The listener/reader will enter another state and assume that the speaker has already concluded that the object being discussed is unreliable. By repeating "should give up" in example [38], the speaker is expressing his/her hesitant attitude. Additionally, it implies that, while "I *should* give up," "I" would not do so.

We can see from example [39] that the concept of "synonyms" in repetition is a quite broad one. They are not need to occur in the same section of speech. They do not even have to be on the same level of language. They simply need to have some semantic resemblances. For instance, "确定(confirm[verb])," "一定(surely [adverb])," and "肯定(definitely [adverb])" can all be considered "synonyms." Even "嗯(uh-huh [interjection])" and "没错(yes/that is true, [short sentence])" might be considered "synonyms" here due to their forceful nature. In [39], the terms "truly," "it's true," and even "I attest to it" are interchangeable because they all refer to confirming the legitimacy of a statement. However, because the statement contains an excessive number of affirmations, the psychological condition will shift and the reversal will occur. The audience will believe that the speaker purposefully stated some false facts in order to convey his or her ironic aim.

A polarized statement is the second subtype of this type. It is a case of degree satiation rather than satiation of similar meanings (which is a feature of the first subcategory). Hyperbole is a frequent example of this type. Speakers communicate

their fervent viewpoints and attitudes through the use of high degree adverbs or other extreme expressions. When the polarity's level does not match the level of the event, reversal occurs as a result of this discord.

[40] 你说的太对了! 世界级真理!

What you said is extremely correct! A world-class truth!

When the opposing side of the dialogue only discusses some broad issues, regardless of whether his/her opinion is true, the subject itself cannot be compared to the evaluation: "a world-class truth." By making such a "colossal" and "grandiose" comment, the speaker intends to convey a negative attitude toward those who expressed a viewpoint. Reversal occurs as a result of a mismatch between the topic's relevance and the evaluation level.

3.2.9 Other devices

3.2.9.1 Constructions which directly carry ironic meanings

Certain expressions, such as idioms and xiehouyu, are difficult to classify. This is because their meanings are dependent on intricate contexts (such as stories or historical events). For instance, the expression "五十步笑百步(fifty steps laugh at one hundred steps)" originates from Mencius' words (an ancient Chinese philosopher). He cited an example of two soldiers deserting the combat shortly after it began. One soldier flees fifty steps, another hundred. However, the first soldier continues to mock the second soldier because the first soldier believes he is more courageous. The entire narrative is a dramatic irony, as people must first learn the entire story in order to comprehend its meaning. However, because the entire event has become an idiom, it is a verbal irony that can be understood without more context. However, due of its complexity, we are unable to categorize it. The same thing occurs with constructions derived from cyber language. These structures rely heavily on cyber memes.

Individuals unfamiliar with a particular internet culture will struggle to grasp the true meaning of these constructions, even if they are competent native speakers.

Homophonic words are another type of formation. Ironic meaning is also expressed through the use of homophonic terms in cyber language. Initially, internet users believed that if they frequently expressed critical opinions toward the government online, their social media accounts would be shut down, affecting their employment and daily life. To convey their sentiments in an indirect manner, they substitute homophonic words for several of the statement's primary topic words. They believe that by employing homophonic words, they may evade the machine examination and ensure that the government does not understand what they are saying. For instance, the most prevalent homophonic pair during a particular epoch is "和谐 (harmony)" and "河蟹 (river crab)". People employ homophonic terms to mock government-promoted ideologies or slogans. With the advancement of natural language processing, we all know that homophonic terms can no longer evade machine examination if the government (or businesses, organizations) so desires. However, individuals continue to use them to indicate the subjects they are discussing. In this state, people mock the government (or businesses, organizations) for their inability to tolerate critiques and opponents. It is a form of verbal irony. The homophonic words employed in the expressions have their literal meanings. However, these types of phrases are also ironic, as reversals do occur. However, because the homophonic words are chosen at random, this usage cannot be characterized.

3.2.9.2 Assistant markers

Punctuation such as the quotation mark, a chain of exclamation marks, question marks, ellipses, or a combination of these can serve as auxiliary irony signals. These punctuations are not ironic in themselves. However, when used in specific contexts,

they might heighten the irony or underline the expression's ironic intention. As a result, they rarely utilized irony alone. The quotation mark is the sole exception. Individuals occasionally use the quotation mark or the phrase "所谓的(so-called)" to signify that they disagree with the content contained within the quotation mark or following the term "so-called." While this usage can be employed independently in some circumstances, it is more frequently utilized in conjunction with other types of reversals.

[41] 一边使劲做着“清廉”秀，“忠诚”秀，一边忙着把子女和财产往美加澳转移！这出戏演的！真有你的！

(Some officers) exert all their strength to make the show of "clean" and "loyal", and transfer their properties and offspring to America, Canada and Australia at the same time! This show acts (wonderfully)! It is so brilliant of you!

In example [41], the writer uses the words "清廉(clean)" and "忠诚(loyal)" in the first line to convey that he/she does not believe the officers truly possess these attributes. However, the quotation mark's primary function here is to stress the writer's intended meaning. The most significant reversal in this case is the evaluation reversal. The writer additionally employs the terms "evaluation omission" and "direct opposite evaluation" (as indicated in 3.2.3) to build two ironic statements in the following sentences. Which demonstrates that the first sentence's ironic meaning is not simply established by the quotation mark. However, the quotation mark serves as an excellent reminder of the ironic meaning.

In comparison to punctuation's indeterminacy, certain formulations serve as dominant marks or irony. That is, although their absence indicates that the context is not ironic, their presence in the expression confirms that the entire text is ironic or, at the very least, contains irony. However, what's fascinating is that the majority of these structures are not ironic in nature. For instance, the Chinese irony "滑天下之大稽"

translates as "world-class ridiculous." When they appear in a statement, regardless of whether the context has been adjudged ironic or not, people will assume that at least one ironic expression is present in the context. There are other constructions of similar type in cyber language. For instance,

[42] 你们知道他有多努力吗! 他都受伤了! (我是友军)

Do you know how hard-working he is! He is even injured! (I'm the friendly forces.)

We discovered this comment beneath the announcement that an actor was slightly wounded during the filming of a film. This actor is often regarded as lacking acting ability and is well-known for his various marketing tactics. According to the first two phrases of the comment, the writer appears to support the actor and wishes to protect him against the attacks. However, the appearance of "我是友军(I am the friendly troops)" significantly alters the tone of the entire comment. The use of this formulation demonstrates that the writer is emulating fan jargon and that the true intention of him/her is to convey a negative attitude toward the actor, as he frequently uses these types of approaches to enhance his profile rather than relying on his professional abilities. The literal meaning of the expression "我是友军" is "I am the friendly forces," whereas the contextual meaning is "I share the majority of people's attitude." Between these two meanings, no reversal occurs. As a result, the construction is not ironic. However, because its existence might shift the commenter's attitude from one of support to one of criticism, it is without a doubt a crucial auxiliary mechanism of irony.

Another fascinating statement from Weibo is as follows:

[43] 一开口就是老阴阳师了

When you start to talk, I know you are an old Onmyoji.

The name "阴阳师(Onmyoji)" refers to a popular Chinese smartphone game.

The term "Onmyoji" is Japanese in origin. It is a vocation for those who are skilled at stargazing, drawing magical figures, and casting spells. The sentence in example [41], on the other hand, has nothing to do with the game or the magical profession. Instead of "onmyoji," the word "阴阳师" should be rendered as "master of sarcasm." In Chinese, there is an expression called "阴阳怪气", which refers to someone who is purposefully unclear or who drips acid into their words or voices with the objective of sarcasm. Meanwhile, the prefix "-师" denotes "the master of..." (for example, the literal translation of "阴阳师" is "the master of Yinyang (eastern magic)"). In some contexts, by adding "" after "", this term refers to persons who are adept at sarcasm. As a result, the true meaning of this sentence is "When you begin speaking, I know you are skilled at sarcasm / plan to be sarcastic." The word "阴阳师" is a pun in this statement. However, when we see this word, we know that the individuals to whom it refers are most likely saying something ironic / sardonic.

These prevalent indicators, similar to #irony on Twitter, are broadly applicable to Chinese texts in a variety of language settings.

The emoticon is another type of helper device. As previously stated, emoticons should truly be classified as reversal of sentiment because they contain both "literal" and "contextual" feelings. However, because there is no universally accepted explanation for them, we must include them in this group. This device is mostly employed in the context of cyber language. Several of them are classic examples of sentiment reversals (for example, use emoji like "😘" to express pleasantly surprised but use "😡" to express angry). The most representative of this type of emoji is "". It is referred to as "smile" in the emoji list. However, similar to the role of the modal particle "呵呵(hoho)," it is almost exclusively employed in youth groups to indicate negative attitudes such as disdain, speechlessness, and disappointment. Meanwhile, when young people use this emoji in their words, it is highly likely that the expression

is ironic.

Certain emoticons are edging closer and closer to being classified as "dominant irony signals." The most evocative is "🐶". It is referred to as "doge" in the emoji list. At first glance, it's just a hilarious dog face devoid of meaning or sentiment. However, its current role is quite similar to that of an irony marker. When people encounter these emoji in a statement, they will automatically cast doubt on the content's true meaning. The meaning does not undergo reversal in and of itself, but the statements that include it do.

3.2.10 Conclusion: Why we emphasize reversal

We can see from the examples above that, in comparison to "opposite" or "incongruity," the idea of "reversal" is more concerned with people's subjective intentions and sentiments. When we consider frequent ironic situations, it appears as though there are no discernible distinctions between these three concepts. However, in other instances, only the reversal procedure can account for them. At least three distinct types of ironic situations lack explicit "contradiction" or "incongruity" between their literal and contextual meanings.

1. Continuous questions: they are presented as questions but can be grasped through both rhetorical reversal and satiation reversal. Apter (1984) identified "satiation" as a critical component that may result in reversal. He reasoned that after a period of time in one state, individuals inevitably reverse to the opposite one. In the majority of circumstances, "opposite state" corresponds to "opposite meaning." However, this map relationship is not always valid. For instance, as previously said,

[19] 为什么我要相信你? 为什么我必须要立刻赶回来? 为什么你可以命令我?

Why I have to trust you? Why I have to go back immediately? Why you can order me?

Each query in this example might be interpreted as an interrogative question, implying that it is seeking an answer. Indeed, the speaker in this instance desired an explanation from the listener. Here, questions are simply questions. Negative emotions such as anger, disdain, and a desire to revolt are manifested pragmatically. These additional pragmatic functions have an effect on the listeners'/readers' psychological responses but have no effect on the statement's original meaning.

2. Factual allegation: Several examples convey objective facts while expressing ironic intents. Facts do not have "contradictory/incongruous" interpretations. They are just summaries of events, circumstances, or rules. However, certain facts may cause individuals to feel illogical, unexpected, or ludicrous. The facts remain. Their meanings remain constant. Individuals' psychological states, on the other hand, have shifted. For instance,

[15] *Ironically, irony won't be used in writing this paper.*

As previously said, the ironic aim arises from the psychological divide between people's presuppositions (a research on irony should include ironic statements) and the statement's reality (irony will not be employed in writing this article).

[37] *真新闻有时是假新闻，假新闻有时是真新闻，这就是中国。*

*Real news sometimes can be fake news. Fake news sometimes can be real news.
This is China.*

In the writer's subjective opinion, the truth expressed in this example is accurate but ludicrous. On a verbal level, this is a case of situational irony.

[34] *大清亡了! The Qing Dynasty has died!*

[35] *醒醒! 2019年了! Wake up! It is 2019!*

These two statements contain subjective facts that cannot be modified. Simply the outlandish timing of events alters people's perceptions of them.

3. Irrelevant responses: Recognizing deviations (whether deliberate or unintentional) can also result in ironic circumstances. For instance,

[22] A: 你不同意也没用, 你排老几?

B: 老大啊。

A: *It is no use that you disagree with it. What is your order?*

B: *I'm the first.*

Speaker A intends to provoke Speaker B with the ironic statement "你排老几? (What is your order)". However, Speaker B interprets this "question" literally and provides an answer. Thus, all sentences must be explained in their literal sense, but they will undoubtedly have an effect on people's psychological states when understood.

3.3 Irony Identification Procedure (IIP)

3.3.1 Brief introduction

The Pragglejazz Group (2007) developed a technique dubbed the Metaphor Identification Procedure (MIP) for identifying metaphorically used words in dialogue. Steen et al. (2010) developed a more detailed procedure – MIPVU – based on this investigation (VU stands for their university, Vrije Universiteit). Their methodologies provide academics with a practical tool and a reference point for identifying metaphorical phrases in a variety of scenarios. Originated from their idea, we develop an Irony Identification Procedure (IIP) as a standard to assist annotators in determining whether an expression is an irony or not through a linguistic approach.

As is well known, ironies must be contextualized. While isolated produced instances created by linguistics experts are essential resources for identifying

representative elements of irony, ironies in real discourses remain the most relevant language materials for understanding their functions and usages in practice. As a result, the first step is to extract these instances of "irony in use" from the corpus. However, the issue is determining whether or not an expression constitutes irony. Typically, researchers ask annotators to make judgments based on their linguistic intuitions. This is very reasonable, given that irony is a subjective concept to some extent. Whether or not reversals are made is subjectively determined by the speakers/writers, whereas whether or not they are experienced is subjectively determined by the listeners/readers. As a result, empirical research rarely provides a standard for defining what constitutes irony in real-world dialogue. As is generally known, people's linguistic intuitions are diverse and unstable, which makes it extremely difficult for other academics to compare various empirical analyses and conduct additional research on this subject.

Thus, we intend to develop a system for recognizing ironies in real language resources in this thesis that is both adaptable and dependable. The procedure is intended to provide a reference criterion for both annotators and academics to use when determining whether a sentence's usage in a certain context qualifies as ironic. In the best-case scenario, the criteria hopes that users can make an informed judgement about whether a particular expression is ironic or not. However, we know that expressions vary in their degree of ironic meaning. As a result, we allow annotators to assign a score to each expression based on their perception of its "ironic degree."

Meanwhile, we understand that the IIP assessments cannot accurately reflect the true intents of actual speakers or writers since they rely on the subjective linguistic intuitions of annotators and researchers. Additionally, it does not always reflect the actual procedure by which listeners or readers determine whether a remark is ironic or not. The procedure only provides a straightforward and pre-programmed method for annotators and academics to consistently find ironies.

In brief, the basic procedure of IIP should be as follow:

1. Read the entire statement to sketch a holistic understanding of the meaning.
2. For each element in the sentence, determine the literal meaning of it.
3. Determine the contextual meaning of each statement, paying particular attention to unusual constructions.
4. Contrast the contextual and literal meanings of the sentence (particularly the constructions) to determine whether the contextual meaning is the reversal of the literal meaning.
5. If the contextual meaning of a sentence experience a reversal from its literal meaning, give a score to the ironic level of it. Then, mark the parts (like constructions, punctuations and emoticons) which mainly show the ironic intention.
6. If a particular construction is not ironic but can assist listeners/readers in determining whether a subsequent line is ironic, label it as a "assistant context."

Take Example [41] as an instance,

[41] 一边使劲做着“清廉”秀，“忠诚”秀，一边忙着把子女和财产往美加澳转移！这出戏演的！真有你的！☹

(Some officers) exert all their strength to make the show of "clean" and "loyal", and transfer their properties and offspring to America, Canada and Australia at the same time! This show acts (wonderfully)! It is so brilliant of you! ☹

The first stage is to create a holistic picture of the meaning. From a broader context, it is clear that the evaluation of this comment is being evaluated. The first statement states that these officers do "shows" while simultaneously relocating their

properties and progeny elsewhere. Although the second sentence is technically incorrect, it is referring to the "shows" put on by those police. The third statement is similarly grammatically incorrect, but should serve as an evaluation of the entire comment's subject. Additionally, the writer included a "angry" emoticon at the conclusion of the statement to convey his/her sentiment.

In step two, we'll verify the literal meaning of each sentence piece. The first sentence contains numerous components.

Element 1: sentence pattern, 一边...一边...;

Literal meaning: do something while do another thing at the same time.

Element 2: verb, 使劲;

Literal meaning: exert one's strength.

Element 3: separable word, 做...秀[verb];

Literal meaning: make the show of...

Element 4: adjective, 清廉

Literal meaning: clean; free from corruption

Element 5: adjective, 忠诚

Literal meaning: loyal; remain faithful to somebody/something and support them.

Element 6: punctuation, “ ”

Literal meaning: quotation mark, usually be used to mark the part which is quote from others statements;

Element 7: verb phrase, 忙着

Literal meaning: be busy with something;

Element 8: sentence pattern, 把...;

Literal meaning: "把" is a preposition, the basic meaning of the sentence pattern is dispose something.

Element 9: noun, 子女;

Literal meaning: son and daughter; offspring.

Element 10: noun, 财产;

Literal meaning: property; cash and other asset.

Element 11: verb phrase, 往...转移;

Literal meaning: transfer to some place.

Element 12: acronym, 美加澳[noun];

Literal meaning: the abbreviation of America, Canada and Australia.

The literal meanings of the elements in the second and third sentences are as follows:

Element 13: noun phrase, 这出戏;

Literal meaning: this show; "这" is a demonstrative pronoun which refer to object which is close to the speaker; "出" is a quantifier; "戏" means drama or show.

Element 14: verb phrase, 演的;

Literal meaning: the correct writing should be "演得" (this kind of error writings are often be made by even native speakers, since "的" and "得" have same pronunciation and share some similarities in functions); "演" is a verb means act. "得" is an auxiliary word which is used to connect the verb/adjective with its result/degree. So that we can know that the complete form of this verb phrase should be "演[verb] + 得 + result/degree". However, in this statement we cannot find this "result/degree".

Element 15: adverb, 真;

Literal meaning: indeed; really.

Element 16: verb, 有;

Literal meaning: have; someone possesses something.

Element 17: pronoun, 你的;

Literal meaning: yours; things which belong to you; However, when this pronoun is used at the end of a structure, the thing it refers to have to appear before it. For example, "这(this)" in the expression "这是你的(this is yours)" or "那件衣服(that shirt)" in the expression "那件衣服是你的(that shirt is yours)". So here this "你的" is much more likely to be the abbreviation of a noun phrase "你的+ noun (your + noun)".

Element 18: emoticon, 😡;

Literal meaning: usually be used to express angry sentiment.

In step three, have participants ascertain the contextual meaning of each statement, particularly those with unusual formulations. The first sentence's literal meaning is that the policemen claim to be clean and faithful, but in reality are neither clean nor loyal. The data indicates that they are engrossed in the process of relocating their properties and progeny abroad. Apart from elements 3 and 6, all other elements in this phrase have their literal meaning. However, the contextual meaning of Element 3 is not "put on a show," but "appear to be something" or "create a scenario for something theatrically." Element 6 indicates that the text enclosed in the quotation mark is not factual or, at the very least, does not reflect the writer's true attitude/evaluation/sentiment.

The second phrase is constructed using the formula "这 + noun + verb + 的". It is a grammatically imprecise construction that omits the verb's result/degree. It was

mentioned in Section 3.2. By employing this construction, writers hope to convey their displeasure or even outrage in an oblique manner. Thus, this sentence is a categorical evaluation of the cops' "display." Additionally, the third statement is grammatically incorrect. It is a solid construction “真有你的”. The literal translation is "really have yours." However, its literal meaning is difficult to comprehend. It should have the construction meaning "how brilliant of you" or "you do indeed have a method/ability to do anything". However, based on the context, we can deduce that it is also a negative evaluation stated ironically. It should have the contextual meaning "shame on you." Finally, the emoticon's "literal meaning" is angry, which corresponds to the sentiment expressed in this remark. Additionally, it has a contextual sense of "mad."

The fourth stage is to compare literal and contextual meanings. As a result of the previous two processes, we may deduce that the first sentence makes use of the ironic verb "作秀" with the helper mark (quotation mark). This line generates evaluation reversal since it literally means "clean and loyal," yet the contextual meaning is "neither clean nor loyal at all." Additionally, the second and third sentences contain evaluation reversals, which involve the use of positive terms to convey negative ratings.

Then, in step 5, we can assign a score to the statement's ironic level. This score is assigned based on individuals' subjective language intuitions. However, this statement should be viewed as ironic. Additionally, the sections "做着‘清廉’秀，‘忠诚’秀 (make a show of being 'clean' and 'faithful')", "这出戏演的(this show performs)", and "真有你的(it is so brilliant of you)" should be designated as ironic constructs.

Because this remark employs numerous common constructions to convey the ironic intention, readers do not need to refer to a great deal of background to get its true meaning. As a result, there is no reference to a "assistant context" in this statement.

3.3.2 Distinct decisions in IIP

Steen et al. raised four distinct decisions when apply MIP to the corpus:

1. *What counts as a stable unit of analysis?*
2. *What is an adequate description of contextual (situation specific) meaning?*
3. *What is a generally motivated description of basic meaning?*
4. *What is the degree of distinctness between the two meanings?*
5. *What is the degree of similarity between the two meanings?*

-- Steen et al. *A Method for Linguistic Metaphor Identification: From MIP to MIPVU*(2010, p. 13)

The fifth decision is made in favor of metaphor because the literal and contextual meanings of a metaphor must be similar in order for them to be related and therefore for people to comprehend the metaphor. However, the first four are also choices we must make while implementing IIP in real-world discussions.

3.3.2.1 Decision One: stable unit of analysis

For the purposes of our research, a stable unit should be a single self-contained entire sentence. An "independent complete sentence" should be a syntactic unit capable of expressing meanings on its own. Punctuation can be extremely important as a marker. However, because the majority of language resources are not produced in a standard written language that strictly adheres to the 标点符号用法(General rules for punctuation, GB/T 15834-2011), they should not be used as the sole criterion. For instance, with the appropriate punctuation, a single word (e.g. "棒(*Good!*)") or a short phrase (e.g. "你敢! (*How dare you!*)") can constitute a sentence. However, even without suitable punctuation, they should be regarded as sentences in some contexts

(e.g., “他居然问最近怎么样...挺好~我能不好么你说” should be regarded as three sentences). Meanwhile, regardless of whether a complex phrase contains a full stop, it should be evaluated as a whole. (For instance, “这个周末。。拜天气和一堆烂事所赐。。整整宅了两天。。” is a single sentence).

Word or construction is not good choice for stable unit. While some words or constructions are inherently ironic, irony must be completed through the use of a sentence. As is well known, irony must be developed within a context. Due to the scarcity of "context" surrounding a single phrase or construction, listeners/readers cannot even establish whether the extended meaning (or construction meaning) is active. For instance, we believe that the expression "五十步笑百步(fifty steps laugh at a hundred steps)" may have an ironic connotation in the following sentence:

[44] 五十步笑百步，看看文革期间的红卫兵吧。

Fifty steps laugh at one hundred steps. See the "Red Guard" during the Cultural Revolution.

The writer implies in this sentence, by the use of the construction "五十步笑百步," that Chinese people are not competent to laugh at others, as China also has a particular period. It is an ironic expression in the sense that it contains a reversal of meanings.

However, imagine a statement like this:

[45] 成语“五十步笑百步”的典故出自《孟子·梁惠王》。

The allusion of the idiom "fifty steps laugh at one hundred steps" comes from Mencius.

This is a non-ironic declarative sentence. It just state a fact so that the construction "五十步笑百步" here is just a subject. Its ironic connotation is not activated. As a result, we cannot determine whether or not this construction is ironic without included it in the sentence.

It is true that some constructions, such as "真有你的! (It is so brilliant of you!)", can be employed independently by simply adding punctuation. However, this whole irony is still contained within a sentence. Additionally, because constructs such as "真有你的" have a non-ironic construction meaning that truly means to praise:

[46] 故障竟然不到半小时就解决了! 真有你的!

You solve the malfunction within half an hour! It is so brilliant of you!

so that we still need to see this "independent used" construction as a sentence and put it into larger context to judge the real meaning of it.

Additionally, we do not consider sections or longer linguistic components to be stable units. Although ironic sentences in context have interaction effects, the sentence itself completes the ironic implication.

Not every sentence in an ironic text must be ironic. Several of them directly state objective facts (or, at the very least, what the speakers/writers believe are objective facts) or the speakers/writers' genuine opinions and thoughts. That is, they mean what they say. These sentences may provide as context/background information for the text's ironic meaning. The judgments and thoughts they portray can assist listeners/readers in confirming the speakers'/writers' overall attitude. However, because they include no reversal, they are not ironic in and of themselves. While these non-ironic lines may contribute to the ironic level of the entire text by providing information support, the ironic inference still emerges from the ironic sentences in the particular context.

Another reason we avoid longer language pieces is that their breadth is difficult to establish due to the presence of stylistic, dramatic, and situational ironies. When the background is sufficiently broad, we can barely ignore the consequences. Then it will be difficult to distinguish ironic implication from verbal irony and other forms of

irony.

To summarize, the most appropriate choice for a stable unit of analysis is an independent complete sentence. It can provide a reasonable amount of context information to smaller language units while also avoiding the introduction of excessive and complex context that may mislead individuals. However, when the text includes Weibo material, we still provide the entire text to the annotators because a single Weibo is limited to 140 characters. Other types of irony are difficult to depict in such detail.

3.3.2.2 Decision Two: an adequate description of contextual meaning

Contextual meaning refers to the exact and actual meaning that a language unit has in the context in which it appears. Generally, it should be straightforward and traditional. In this case, the contextual meaning is not dissimilar to the literal meaning. In order for it to be included in a generic dictionary. However, it can occasionally be innovative or extremely particular. In this instance, it deviates from its literal meaning by a significant amount, if not entirely. As a result, we must first refer to the context and then interpret it.

Irony's contextual significance is unmistakable in the second instance. When considering its contextual meaning, individuals should pay specific attention to constructs like as idioms, adjective phrases, and clauses connected by conjunctions (especially the logic relations among them). And then they must consider the following:

- 1) Confirm the speakers'/writers' fundamental sentiment, evaluation, and/or attitude toward the objects based on the holistic understanding gained in the prior phase.

- 2) Consider whether the situation activates the potential construction meanings

of those particular constructs.

3) Consider whether certain specialized formulations and rhetorical methods provide additional pragmatic purposes.

4) Identifying sections that break syntactic, semantic, or pragmatic linguistic or logical rules. Pay close attention to these sections and analyze their true significance.

5) When a sentence lacks context information yet is likely to be ironic, the ironic interpretation should not be discounted.

3.3.2.3 Decision Three: generally motivated description of literal meaning

The literal meaning of a word or construction should be its most fundamental definition. As is well known, the meanings of constructions are not derived directly from the meanings of their constituents. However, when describing literal meanings, researchers should not include the construction meanings that emerge as a result of the components' combination nor should they refer to any context. They simply need to concentrate on the originals.

Similarly, the fundamental meaning of a sentence should be the straightforward integration of each component's fundamental meaning. Meanwhile, the integrated meaning of the components should encompass not only their semantic meaning, but also their literal evaluative and sentimental value. The so-called "literal meanings" must be as follows:

1) Direct: Can be understood without any context. Can be easily seen, felt or imaged.

Certain exclusions, however, must be stated. If a word can be employed in more than one grammatical category or belongs to more than one part of speech, its fundamental meaning should be contextual. Its literal meaning must refer to the

grammatical category in which the word-form is used in context. For instance, the word "好" (pronounced in Chinese with a falling-rising tone of "hao") has at least three distinct utterances.

- a. adjective: means good, proper, complete, easy and so on;
- b. adverb: means much, long or other high degree;
- c. verb: means "be convenient for".

It can also be an auxiliary pronoun, which signifies "may," or an interrogative pronoun, which inquires about amount or degree. As can be seen, the part of speech usages of this word are quite varied. We cannot consider a certain component of speech usage to be the "literal meaning" of "好" in all contexts. In this case, we must consider the word's grammatical function within the construction or sentence.

For instance, in the construction "你可倒好(you are actually good)," the word "好" is an adjective, implying that its primary meaning should be "fine/good." However, in the statement "这还真是好厉害呢(that is truly amazing)," "好" should be an adverb describing the awe-inspiring degree of the following adjective. It may have a literal meaning of "very" in this instance.

2) Formal: Can be found as basic meanings of the words or phrases in dictionaries. Meanwhile, they are usually historically older. In this step, both 现代汉语词典 第 7 版(Modern Chinese Dictionary (the seventh edition), Institute of Linguistics, CASS (Eds.), 2016) and Chinese Wordnet (Huang et al., 2010) are consulted.

Often, the more formal definitions correspond to the words' historical older meaning. However, they are not required to be the first. Due to the development of ancient Chinese to modern Chinese, many of the words' original meanings are no longer utilized or have faded away. For instance, the root of the word "好" is

"beautiful (particularly in reference to females)". While the underlying meaning of the adjective "好" remains positive in modern Chinese, its original meaning ("beautiful") is rarely employed. As a result, the word's fundamental meaning should be the historically older and still widely used meaning in *modern Chinese*.

A more illustrative instance is the use of the word "亏". In ancient Chinese, the most literal translation is "damage of vital energy." And, in ancient Chinese, it acquired a variety of connotations such as "lack", "damage", "loss", "lost", and "decrease". All of the preceding definitions are used as verbs. While these definitions vary slightly, their overall tendency are unfavorable (damage and lost). However, a different usage of "亏" emerged in ancient Chinese as well. People began to use "亏" as an adverb to mean "luckily" or "fortunately". This is a reversal of the "亏" trend, as the adverb usages are clearly positive. Both negative verb usages and positive adverb usages persist in modern Chinese. While the verb usages are historically more ancient, both of these two usages should be regarded basic. Just like "好" we mentioned above, which one is the literal meaning depends on the grammatical role of the word in the sentence. That is, when it is employed as an adverb, its literal meaning should be considered positive. As a result, we will consider the sentence "这都不知道, 亏你是大学生。 (*You even do not know this. Luckily you are an undergraduate.*)" undergo a reversal, despite the fact that the historically older meaning of "亏" is negative.

3) Common: Do not use any rhetorical devices including metaphor, exaggeration, and, of course, irony and sarcasm. Meanwhile, they are usually more frequently-used meanings. However, they do not have to be the most frequently-used ones.

Particular constructions, such as idioms, solid / semi-solid structures, and certain words, are so often used that their ironic interpretations are not only included in dictionaries, but are also more readily accepted by listeners / readers. In this case, we

continue to regard the meaning that is more akin to the straightforward integration of the literal meanings of each component as the fundamental one, notwithstanding its rarity. Consider the following pair examples:

[47] a. 刚才是他在说你，不是我说你。

That was he talking about you, not me.

b. 不是我说你，这么干也太过分了。

It is not me to say you. What you did is too excessive.

[48] a. 如果站在金星上，我们就可以看到太阳从西边出来。

If we stand on Venus, we can see sun rise from the west.

b. 你居然没迟到！太阳从西边出来了！

You're not late! Sun rise from the west!

We have translated all of the sentences in the preceding four examples in a manner that is near to their literal meaning. However, we can easily discern the ironic aim in [47b] and [48b]. We can deduce that the true meaning of the construction "不是我说你(it is not for me to speak about/say you)" is "I am obligated to blame you," whereas the true meaning of the construction "太阳从西边出来(sun rise from the west)" is "it is impossible." On the contrary, in order to interpret them literally, we must create precise, if not severe, conditions, as in [47a] (he was speaking about you although I was not) and [48a] (stand on Venus). While the meaning that is closest to the basic integration of each component is more difficult to utilize and less common, we nonetheless consider "it is not me to speak about/say you" and "sun rise from the west" to be literal.

Another unusual construction is that some constructions have only construction meaning: if we do not view them as a whole, they have no meaning because their grammar is incomprehensible. Consider the construction "真有你的". If we merely

combine the literal meanings, the conclusion should be something along the lines of "truly have yours." This literal translation is difficult to understand due to the ungrammatical nature of the Chinese construction. This expression must be rendered in its entirety. Its construction meanings, on the other hand, can be classified into multiple categories. When taken in its entirety, the construction "真有你的" can be either positive (as in "how smart of you" or "you do indeed have the method/ability to do anything") or negative (as in "shame on you" or "I'm quite disappointed in you"). However, one of them is more original; the attitude demonstrated in this sense should be the fundamental one. The ironic meaning should be the one whose attitude is the reversal of this "fundamental construction meaning."

The more extreme case is that certain constructions are simply ironic in nature. For instance, the construction "好你个+ noun phrase" (e.g. 好你个调皮孩子). "好" means "good", "你" means "you" and "个" is quantifier. Therefore, the literal translation of the idiom "好你个调皮孩子" should be "good you naughty boy." Additionally, this term is grammatical, as the construction should be comprehended in its entirety. The true meaning could be "This mischievous boy is irritating." Although this construction only has negative connotations, we consider it as ironic because the essential connotations of the terms in this construction are positive.

3.3.2.4 Decision Four: the degree of distinctness between the two meanings

In many kinds of the expressions, there may be distinctness between literal meanings and contextual meanings. For instance, in the example put forward by Pragglejaz Group (2007, p. 3)

For years, Sonia Gandhi has struggled to convince Indians that she is fit to wear the mantle of the political dynasty into which she married, let alone to become premier.

They determined that the fundamental (literal) meaning of "struggled" is "physical strength against someone or something," whereas the contextual meaning is "effort, difficulty, and failure to accomplish a goal." As a result, they asserted that while the fundamental meaning of the word "struggled" differs from its contextual meaning, individuals may understand it through comparison. Simultaneously, they asserted that the contextual connotations of the terms "fit," "wear," "mantle," "dynasty," and "into" are similarly distinct from their literal interpretations. However, these are merely metaphors, not ironies. Other linguistic phenomena, such as puns and exaggerations, exhibit a separation of literal and contextual meanings. For instance, consider the Lenovo Group's well-known advertising slogan:

[49] 人类失去联想，世界将会怎样？

If human lost association, what will happen to the world?

This slogan is a pun. The Lenovo Group's Chinese name is the same as the word "association." The literal translation of "association" in this context is "the capacity to make mental connections between ideas." However, as an advertising phrase, it implies not only "ability," but also "Lenovo Group." Thus, there is also a distinction between literal and contextual interpretations. However, puns are not required to be ironic.

That is why we continuously underline that irony's key aspect is the reversal process. Both researchers and annotators should be aware that the evaluation criterion is if there is a reversal of meanings rather than simply a "incongruity." For instance, if the literal sentiment of a construction is delight and the contextual sentiment is rage or detestation, this is a case of sentiment reversal. However, if the distinction between joy and excitement is only apparent, it is merely a "incongruity." As a result, we cannot regard this structure to be ironic on a sentimental level.

From the perspective of the evaluation angel, if a construction's literal evaluation is affirmation but its contextual evaluation is denial, it may be a reversal. If evaluation

simply shifts from negation to rebuke, this is referred described as a "incongruity." We cannot also see this construction as ironic on an evaluation level in this circumstance.

If the literal logic relation of the construction is transition and the contextual logic connection is coordinate or progression, it is a reversal. If the logic relation simply switches from coordinate to progression, this is referred to as a "incongruity."

We will invite annotators to annotate the passages they believe are ironic in our research. We will next rephrase these sections in more straightforward and non-ironic language and ask annotators to re-annotate the rephrased sentences. So that these distinctions can be quantified.

3.3.3 More examples in application of IIP

In this part, we will use four different types of reversals in irony (rhetorical reversals, expectation reversals, evaluation reversals, and sentiment reversals) to demonstrate how we might apply the IIP technique to the judging of real discourses. We shall present one example of each type of irony. By contrast, we chose another statement for each case that contains comparable constructs to the ironic expression but is not regarded ironic. To assist you in instinctively deciphering the literal meaning of each sentence, we simply provide the English translation for each word beneath the Chinese statement. The "contextual meaning" of the entire sentence will be determined through comprehensive analysis using IIP.

3.3.3.1 Example Pair One: statements which may contain rhetorical reversal

[50] 想要 平等? 不可能的。你 今天 死了, 对 公司 会 有 多大 影响?

want equality? impossible. you today die, to company may have how much impact?

[51] 家长的 教育 方式 对 孩子 的 未来 会 有 多大 影响?

Step One: create a holistic interpretation of the phrase. The statement in example [50] is referring to the relationship between "you" and "business." The first two phrases are self-critical, stating that "equality is unattainable." The third sentence is a query regarding the "effect on the business" if you die today. Example [51] consists solely of a single sentence. It is a question about the relationship between the "parents' educational technique" and the "future of their children."

Step Two: Each word in the sentences has been given a brief literal meaning in the preceding paragraph. These "literal meanings" are the most often used definitions for these words, which are, of course, available in dictionaries. Both of these statements share the same part "会有多大影响". The literal translation of this word is "the degree to which something may have an effect."

Step Three: In Example [50], the writer begins with a subjectively validated proposition: it is difficult to demand equality from one's employer. Then he/she poses the following question: what will be the impact of your death on your business? However, based on the premise made previously, readers can deduce that the writer already has a subjective response: your death will have no effect on your business. And by making this extreme assumption, the writer implies that you are irrelevant to your organization, such that they ignore you entirely, much alone your demand for equality. The context transforms the third sentence into a rhetorical inquiry, and the statement's overall tone is negative.

Without further context, Example [51] simply inquires about the effect of educational approaches on children's futures. Because the speaker lacks advanced subjective judgment and is anticipating an answer, this is an interrogative sentence.

Step Four: The literal interpretations of the first two sentences in Example [50] are nearly identical to their contextual interpretations. The third sentence of [50] is a reversal, as the sentence literally requests an answer, but the writer already has a

subjective opinion and want to communicate an intense negative attitude about it. There is no reversal in Example [51], as its literal and contextual meanings are identical.

Step Five: assign a score to Example [50]'s ironic level. Consider the entire third sentence to be a "ironic section," as the ironic aim is established not only by the rhetorical question "对公司会有什么影响? (How much impact will it have on your company?)" but also by the extreme assumption "你今天死了(even if you died today)".

Step Six: The first two phrases of Example [50] might be classified as "helper context" since they help establish (or at the very least, enhance) the statement's negative attitude and ironic intention.

3.3.3.2 Example Pair Two: statements which may contain expectation reversal

[52] 一张 签名照 居然 被 炒 到 四位数, 你们

a sheet of autographed photo unexpectedly (passive) fry to four-digit number, you

最好再 离谱 一点。

best more leave the music score a little bit.

[53] 为了 精益求精, 星期天 报纸的 内容 最好再 广泛 一些。

in order to excelsior, Sunday newspaper's content best more comprehensive a little bit.

Step One: create a holistic interpretation of the phrase. The writer's perspective about the fact that a signed photograph costs more than a thousand dollars is expressed in Example [52]. The first clause expresses a fact, whereas the second clause appears to communicate an expectation through the usage of the construction "最好再+ adjective + 一点 (would better be more + adjective)". The following example [53] makes a proposal about the content of "Sunday's newspaper." The writer

anticipates that the material might be expanded and notes that the purpose of this recommendation is to elevate the publication to greater heights.

Step Two: Each word in the sentences has been given a brief literal meaning in the preceding paragraph. These two statements both contain the phrase "最好再+ adjective + 一点". According to the literal meaning of this term, something "should be a little bit more + adjective" based on its current state. Thus, the literal interpretation of the second phrase of [52] is a plea to those who manipulate the price or those who truly purchase the photo at such a high price to continue doing so and to distance themselves from the music score. The literal interpretation of [53]'s second phrase is an expectation that the content will be slightly more thorough.

Step Three:

In Example [52], the writer begins by stating that the price of a signed photograph can exceed ¥1,000. The word "炒" is not used in its original sense here, which refers to a type of cooking procedure. It means to artificially inflate the price (or, in another context, the reputation and value) using some unethical means. Meanwhile, the writer expresses his/her surprising sentiment by the use of the word "居然." The second clause is weird if we take it literally. There are several distinctions between the literal and contextual meanings of this term. To begin, the word "离谱" here refers to the silly or stupid, rather than the literal meaning "离(leave) 谱(the music score)". At the same time, the writer's true purpose is not to compel others to be more silly. Indeed, he/she believes this reality to be unusual and attempts to persuade others to refrain from continuing to do so. This statement's overall tone is negative.

Without additional context, we believe the writer of Example [53] sincerely desired that the newspaper's content be more thorough. Its contextual meaning is identical to that of the literal.

Step Four: Several distinctness are between the literal and contextual meaning of Example [53]. 1) "炒": The literal translation is "fried," however the contextual

translation is "drive up." These two meanings are incongruous with one another yet do not undergo reversal. Indeed, the contextual meaning can be grasped in comparison to the literal one: "fried" refers to increasing the temperature of foods, whereas "driving up" refers to increasing the price of items. As a result, it is a metaphor rather than an irony. 2) "离谱": literal translation is "abandon the music score," while the contextual translation is "absurd." By comparison to the literal definition, the contextual meaning is as follows: if individuals sing/play music off-key, it will sound silly. Similarly, when people perform ludicrous things, others may experience the sensation of hearing off-key music. There is no reversal; rather, there is an incongruity between the literal and contextual meanings, making it a metaphor rather than an irony. 3)"最好再...一点": literal translation is "better be more..."; contextual translation is "do not be so...". There is a clear reversal of meaning between the literal and contextual meanings, indicating that this is an ironic statement.

There is no reversal in Example [53], as its literal and contextual meanings are identical.

Step Five: give a score to the ironic level of Example [52]. Mark the expression "最好再离谱一点(better be more absurd)" as "ironic part".

Step Six: The first clause of Example [52] can be marked as "assistant context" since it help to establish the negative attitude as well as the ironic intention of the statement. And it is also the evaluation object of the whole statement.

3.3.3.3 Example Pair Three: statements which may contain evaluation reversal

[54] 连 这点 基本 常识 都 没有, 亏 你 是 名校

even such a little basic common sense (even) do not have, luckily you are elite school

高材生。

top student.

[55] 亏 我 毕业 早, 不然 现在 小孩的 学习 压力 真的 承受

luckily I graduate early, otherwise present kids' learning pressure really bear

不来 啊。

cannot (modal particle).

Step One: holistic understanding. Example [54] discusses how "you" are a top student from an exclusive institution but lack fundamental common sense. The entire phrase is an evaluation of "you" and the fact that "you lack fundamental common sense." Example [55] expresses the subjective judgment that: the educational pressures on today's children are unbearable. Additionally, the speaker conveys the evaluation that he/she is fortunate to be free of this pressure now that he/she has graduated.

Step Two: The brief literal meaning of each word in the sentences has been shown above. These two statements contain the same evaluative word "亏". Here the word "亏" is used as an adverb so that the literal meaning of it should be "luckily/fortunately" (as what we mentioned in 3.3.2.3). So that the literal meaning of both the second clause in [54] and the first clause of [55] are positive evaluations to the present state. "连...都" in [54] is a construction which means "even". The whole construction is, to some degree, a baseline which usually be the most basic standard of doing something or the least possible situation of something. Therefore, the first clause of [54] express a surprised and reproachful sentiment.

Step Three: The social assessments of "top student from elite school" is that they should be knowledgeable and professional. It is a positive assessment so that it seems to be accord with the positive evaluative word "亏(luckily)". However, the first clause of [54] state a fact that "you do not have basic common sense". This fact is distinctly opposite to the social assessments. Therefore, the evaluative word "亏

(luckily)" does not in its literal meaning but in an ironic usage. The second clause of [54] actually means "your knowledge reserve does not accord with your identity (top student)". The overall evaluation included in this statement is negative.

The contextual meaning of Example [55] is close to the literal one. Speaker exclaims the big learning pressure of present kids and give a positive evaluation to the fact that he/she do not need to bear this pressure.

Step Four: The first clause of [54] and the entire statement of [55] retain their literal sense in context. However, the second phrase in [54] has a contextual interpretation that is the reversal of its literal meaning. The literal evaluation is positive, whereas the contextual evaluation is negative. As a result, Example [54] is a double irony.

Step Five: give a score to the ironic level of Example [54]. Mark the expression "亏你是名校高材生(luckily you are top student from elite school)" as "ironic part".

Step Six: The first clause of Example [54] can be marked as "assistant context" since it help to establish the negative attitude as well as the ironic intention of the statement. And it is also the background information of the speaker's evaluation.

3.3.3.4 Example Pair Four: statements which may contain reversal of sentiment

[56] 感谢 设计师, 我 摔 得 很 结实……

thanks to designer, I fall down (auxiliary word) very strong...

[57] 感谢 我的朋友, 他们在 最 艰难的日子 帮助 了我。

thanks to my friends, they in most difficult days (in) help (auxiliary word) me.

Step One: holistic understanding. In Example [56], the speaker communicates

sentiment to the designer of something for causing him/her to tumble. While the sentiment is positive, the motivation is negative. Example [57] also includes a grateful sentiment, with the speaker expressing gratitude for the assistance provided by his/her friends. Both the sentiment and the rationale are positive.

Step Two: each word in the sentences has been given a brief literal meaning in the preceding paragraph. Both of these statements express the same sentiment: gratitude. [56]'s first line expresses sentiment, but the second clause states a fact: "I fall down." The literal translation of the term "结实" is "sturdy, strong, or firm." [57] follows the same pattern as [56], in that it expresses the sentiment first and then explains the explanation.

Step Three: It's remarkable that the speaker has fallen but remains appreciative of the "primary perpetrator." However, when we interpret this expression ironically, it becomes ironic. The true meaning of Example [56] is that the designer's inappropriate design is to blame for his/her demise. We can also determine the contextual meaning of the word "结实" based on the verb (fall). The statement's contextual sentiment is negative, which is consistent with the basis behind this sentiment.

Example [57] has a contextual meaning that is akin to its literal meaning. The general sentiment is positive. Indeed, the speaker want to express gratitude to his/her friends for their assistance.

Step Four: The literal and contextual meanings of Example [56] are rather distinct. To begin, the contextual meaning of "感谢..." is "blame...", implying a negative sentiment, although the literal meaning is "thank you," implying a positive sentiment. Due to the fact that this distinction is a reversal of sentiment, this term is ironic. Meanwhile, the contextual sense of the word "结实" is grave, but the literal meaning is "powerful." However, when compared to the literal definition, the contextual meaning becomes clear: the physical robust and sturdy can be extended to an abstract high level degree. As a result, "结实" is a metaphor rather than an irony in

this instance.

Example [57] contains no reversal since its literal and contextual meanings are congruent.

Step Five: give a score to the ironic level of Example [56]. Mark the expression "感谢设计师(thanks to the designer)" as "ironic part".

Step Six: The second clause of Example [56] can be marked as "assistant context" since it help to establish the negative attitude as well as the ironic intention of the statement. And it is also the reason of why the speaker use this irony here.

3.4 Usages of corpus based methods

As what Gries mentioned in *Oxford Handbook of Construction Grammar* (Hoffmann and Trousdale (Eds.), 2013), corpus linguists are exploring (a) more and more diverse association measures to quantify if and how much different linguistic elements are attracted to each other; (b) ways to identify uninterrupted and interrupted n-grams; (c) ways of quantifying the dispersion / distribution of linguistic elements.

These are also questions we concern about and the problems we want to address. As a result, there is little doubt that the corpus-based method is the optimal strategy for our research. Indeed, corpora are a trusted and widely utilized resource for researchers seeking to uncover linguistic patterns and features. The fundamental reason for this is because corpora can give researchers with an abundance of spontaneous and extemporaneous communications. In comparison to "self-made" examples created by researchers, these spontaneously occurring examples are typically less formal and conventional, but they reflect the true essence of how the language behaves in real-world settings. And "real" is particularly relevant for linguistic phenomena that are inextricably linked to the subjective intents of the participants in the discourse. Sentences gleaned through introspection are constrained

by the researchers' linguistic tendencies. They cannot be completely random and balanced. Additionally, because they lack the possibility for new applications, they make it difficult for researchers to find new challenges. However, by analyzing large-scale corpora, it is possible to uncover facts that were overlooked or mischaracterized.

Linguistic, on the other hand, is founded on facts and statistics. That is, any conclusion or theory must be founded on data. The corpus data, such as frequency and proportions, provide evidence for or against the hypothesis. Without corpora data, we can only state "something should be..."; however, with it, we can state "to what extent, something is...". Additionally, corpora enable us to extract information using computational methods. This means that researchers can quickly identify not only one good case, but also a large number of potentially good ones.

Our research relies heavily on Weibo for language resources. Weibo is a Chinese social media platform whose contents represent daily conversational subjects and which together comprise a massive corpus of natural discourse whose items all occur in real life. It closely monitors current events in a variety of fields and can quickly reflect changes in as well as new linguistic usages. Another advantage is that each communication is limited to 140 Chinese characters in length. It requires users to articulate their meaning succinctly and succinctly. This feature enables us to quickly ascertain the primary meaning and important phrases without referring to excessive contextual information. Additionally, it efficiently avoids the majority of dramatic and situational ironies, as these types of ironies typically require a bigger framework.

Meanwhile, based on Weibo's massive user base, it has generated several language regulations that are widely accepted by the majority of users and have the potential to constrain the evolution of cyber language. Numerous cyber memes originate on or are extensively disseminated on Weibo. It is one of the most fertile breeding grounds for novel linguistic usages, many of which incorporate ironic terms.

For instance, emoticons on Weibo can assist us in filtering out some irony information. Emoticons are and have historically been seen as ironic marks. These codified markers serve as dominating indicators that can assist us in quickly locating some ironic phrases. Additionally, we see that the comments on some Weibo messages are more likely to be ironic than the statements themselves. This is unsurprising given the messages' proclivity for stating events and the comments' proclivity for expressing personal opinions.

Language materials from the BCC (officially known as the BLCU Corpus Center; see Xun et al., 2016) are used to supplement Weibo. Due to the informal and innovative nature of Weibo's usages, we may overlook several ancient ironic idioms. BCC contains language content from a variety of sources, including literature, newspapers, science (which is used for academic purposes), and Weibo (served as spoken language). It is a fairly comprehensive corpus that takes into account a variety of requirements. One of its most distinguishing features is its robust search engine, which not only indexes its massive corpus (more than 32 billion Chinese characters), but also supports pattern retrieval and data statistics. Due to the irony that it contains diachronic linguistic components, it can assist us in identifying those traditional ironic expressions.

Our subsequent research will be based on a fresh irony corpus derived entirely from Weibo and BCC. We shall discuss this corpus in further depth in Chapter 4.

Chapter 4 Construct of irony corpus

As previously stated, due to a dearth of studies on Chinese irony, just one corpus devoted exclusively to Chinese irony has been constructed (Tang and Chen, 2014). They made an excellent attempt at this by detecting ironic expressions in the massive data sets of social platforms (they use Plurk, a twitter-like platform, as an example source) and creating a Chinese irony corpus comprised of 1,005 Plurk messages. However, their corpus is limited in diversity because it only comprises messages that contain five distinct types of "special structures." We know from Chapter 3's categorization that there are considerably more than five ways to communicate irony, which suggests that Tang and Chen's corpus still has a lot of opportunity for development.

This chapter will introduce the Chinese irony corpus that we created using Weibo and BCC language resources. We will discuss how we extract ironic expressions from large-scale data in Section 4.1. Section 4.2 describes the corpus's structure and how we annotate its pieces. Section 4.3 contains the analysis based on the corpus's data.

4.1 Method of extracting ironic expressions

4.1.1 Basic structure of the corpus

According to the IIP standard (Section 3.3.2), the stable and fundamental unit of analysis should be a single independent complete sentence. As a result, each item's initial condition is that it contain at least one complete sentence. However, manually identifying ironic terms in a bigger corpus is likewise a difficult operation. Prior to delving into the details of the strategy for extracting ironic expressions from corpora, we determined the estimated prevalence of ironic phrases in various types of linguistic resources.

The researcher manually tagged 2000 randomly selected Weibo messages according to the IIP standard. Only 37 are considered to be verbal irony or to have an intentional ironic goal. The percentage is less than 2%. This proportion is insufficient, and as a result, we investigated certain alternative corpora that focus on specific language forms. "相声(xiang sheng, cross talk)" is a type of traditional Chinese folk art. It is a type of comedy that typically requires the participation of two performers in the form of dialogues. They frequently have to generate comedy by having one actor say something absurd while another implicitly mocks him (or her). A subset of the CCL corpus (Peking University) is "cross talk". We randomly extract 500 items from it and detect 64 instances of verbal irony. The percentage is approximately 12.8 percent. Another 500 satires were chosen at random from Weibo's "洋葱故事会(The Onion Story-telling Session)". 71 of them are judged to possess verbal irony, with a rate of approximately 14.2 percent. The last two linguistic resources appear to be more ironic. Unfortunately, because the cross talk corpus only contains the materials of a few prominent actors and the Weibo account is run by a few people, the corpus's language diversity and scope are severely limited. As a result, they are inadequate research resources.

However, while the Weibo corpus can provide diverse and large-scale linguistic materials, finding ironic expressions item by item is extremely inefficient due to the low fraction of ironic expressions. How to discover ironic expressions using more precise methods? We discussed in Chapter 3 that rhetorical inquiries and some imperative statements are more ironic. Simultaneously, people occasionally employ opposite pairs and constructions that directly convey ironic meanings or that explicitly mark an ironic situation in order to establish ironies. Thus, we randomly select utterances that contain one or more of the following: 1) rhetorical questions; 2) imperative sentences; 3) opposite pairs; 4) idiom-like ironic formulations (Section 3.2.9.1); or 5) assistance marks (Section 3.2.9.2). We extract 500 items from Weibo for each type, and the results are as follows:

Special expression the item contains	Number of verbal irony	Percentage
Rhetorical question	54	10.8%
Imperative sentence	35	7%
Opposite pair	21	4.2%
Idiom-like ironic constructions	413	82.6%
Assistant mark	378	75.6%
Total	901	36%

Table 1. Irony percentage in preliminary investigate

The investigation reveals that when we look for ironic expressions in things that contain special expressions, the proportions dramatically increase. The proportions are particularly high when they are located beside certain constructions. As a result, we believe that employing constructions can significantly aid us in identifying ironies within big corpora. As such, we create a construction-based method for locating ironic phrases based on the method proposed by Tang and Chen (2014):

To begin, we accept the notion that certain specialized constructions may harbor ironic intents. We use a database called the Construction Database of Modern Chinese to locate some of these constructions. This database, which was created by Zhan et al. (2016), comprises over 2,000 construction items and thorough syntactic, semantic, and pragmatic information on them. Each item in the database is collected and annotated by linguistic (particularly construction grammar) academics to ensure that the data included therein is sufficiently reliable. This database's definition of "construction" falls between Fillmore and Goldberg. It follows Goldberg's idea and considers all non-predictable structures to be constructions. As a result, it contains words and grammatical structures. However, like with Fillmore's theory, it places a premium on structures that are analogous to "idioms" in conventional linguistic

theories. These structures frequently exhibit distinctive grammatical, semantic, and pragmatic characteristics, all of which conform to Fillmore's definition of "idiom."

This database is constantly updated to reflect the current state of use of Chinese constructions and so serves as an excellent resource for our study. To identify possible ironic constructions, we look for those that exhibit at least one of the following four constructions:

a. 否定义 (negative meaning): We chose this feature because ironic expressions must convey speakers'/writers' views about objects. Negative connotations are a means of expressing attitudes. Certain constructions of this type may have ironic connotations.

b. 含否定成分 (contain negative element): In comparison to "negative meaning," constructions with this attribute make more frequent use of dominating means of expressing attitude. Although these constructions have negative aspects in their shape, they do not have to convey "negative meaning" and might even convey a positive attitude. As a result, this feature should also be considered.

c. 负面评价 (negative evaluation): in comparison to "negative meaning," this is a more targeted feature. When such constructions are used, evaluation reversals are likely to occur.

d. 修辞 (rhetoric): irony is frequently viewed as a rhetorical tactic by scholars. Numerous idioms that employ rhetorical tactics may have distinct literal and contextual interpretations. That is where reversal and irony may develop.

By extracting constructions that contain at least one of these four characteristics, the following constructions are frequently used as ironic phrases. We not only list their forms, but also their annotated features and rephrasing templates (as close to their non-ironic true meaning as the database allows). With the right contextual context, these constructions have a high probability of leading individuals to derive

negative interpretations from their positive literal meanings (vice versa).¹

Construction : np + 有 这么 + vp + 的吗

np be like this vp (modal particle)

Feature: omission, negative evaluation

Rephrasing Template: 这么+ vp + np + 是不对的 (it is wrong to + vp + np)

Construction: np + 算 老几

np count order of seniority

Feature: omission, interrogative element, negative meaning, negative evaluation, subjective small quantity

Rephrasing Template: np + 不配 (np be not qualified to)

Construction : np₁ + np₂, np₃ + 还 + np₄ + 呢

np₁ np₂, np₃ even np₄ (modal particle)

Feature: negative meaning

Rephrasing Template: np₁+ 是+ np₂ + 没什么大不了, 因为+ np₃ + 还是 + np₄ + 呢 (it is not a big deal that np₁ is np₂ , since np₃ is np₄)

Construction: 不是 我 + v + 你

not me v you

Feature: redundancy, negative element, negative evaluation

Rephrasing Template: 我不是刻意要 + v + 你 (I'm not deliberately to + v + you)

¹ In this database, "n" represent "noun", "v" represent "verb", "a" represent "adjective", "r" represent "pronoun", "np" represent "noun phrase", "vp" represent "verb phrase", and "X" this part represent can be different words/phrases which are in different kind of part of speech.

Construction: 你 以为 你 是 谁

you think you be who

Feature: recurrence, interrogative element, negative meaning

Rephrasing Template: 你不应该这么做 (you should not do this)

Construction: 有 什么 + v + 头

have what v (suffix, means "the meaning/worth of" in this construction)

Feature: interrogative element, negative meaning, negative evaluation

Rephrasing Template: 不值得 + v (not worth to + v)

Construction: 有 什么 好 + vp + 的

have what worth vp (function word)

Feature: interrogative element, negative meaning, semantic mispairing

Rephrasing Template: 不值得 + v (not worth to + v)

Construction: 亏 + np + vp

luckily np vp

Feature: semantic mispairing, negative evaluation

Rephrasing Template: 虽然+ np + vp, 但是没有什么用 (although + np +vp, it is no use of it)

Construction: 亏+ r + vp₁ + 得 + vp₂

luckily r vp₁ (function word) vp₂

Feature: grammatical mispairing, negative evaluation

Rephrasing Template: r + 不应该 + vp₁ + vp₂ (r + should not + vp₁ + vp₂)

Construction: 可 倒 好

indeed on the contrary good

Feature: grammatical mispairing, redundancy, rhetoric, negative evaluation

Rephrasing Template: 不好 (bad)

Construction: 好 你 个 + np

good you (quantifier) np

Feature: grammatical mispairing, negative evaluation

Rephrasing Template: subjective attitude + marked word

Construction: 有 你 这么 + vp + 的吗

be you like this vp (modal particle)

Feature: interrogative element, negative evaluation

Rephrasing Template: 你不应该这么 + vp (you should not + vp)

Construction: 还 + np + 呢

even np (modal particle)

Feature: omission, negative evaluation

Rephrasing Template: 行为不符合 + np + 的身份 ((one's) behavior do not accord with the identity of + np)

Construction: 这 叫 什么 + X + 啊

this call what X (modal particle)

Feature: semantic mispairing, abnormal argument, interrogative element, negative evaluation

Rephrasing Template: X + 名不副实 (X + is unworthy of its name)

Construction: 有 + np + 好 + v + 的

have np worth v (auxiliary words)

Feature: semantic mispairing, rhetoric

Rephrasing Template: 让 + np + 不好 + v (let + np + not easy to + v)

Construction: 还 敢 再 + a + 点儿 么

still dare more a. a little bit (modal particle)

Feature: subjective large quantity, rhetoric

Rephrasing Template: 已经非常 + a + 了 (it is already very + a.)

We have some disagreements with the rephrasing templates given in the database, but the information in it shows the general features of each construction.

Step Two: We automatically extract items which contain at least one of the constructions above from Weibo and BCC. Then, five annotators are asked to rate each item's ironic level. Two of them have a background in languages, whereas the remaining three do not. We anticipate that this distribution will help to balance the disparities between academic and non-academic evaluations.

We know that every expression, in the right context, can be ironic. Irony is not a binary concept, as practically all utterances have the potential to be ironic in some way. The contextual information does not manufacture meanings that do not exist; it merely activates the expression's ironic potential. Different persons may also have varying perceptions of irony, as some people's points of view conform to activation requests while others do not. Or, alternatively, some individuals possess more prior information than others, enabling them to activate the implicit meanings. As a result, rather than making a binary decision, we ask annotators to assign a score to the expression's ironic degree.

Annotators are requested to assign a score of 1 to 5 to each item. One indicates that they believe the thing is unlikely to be ironic, while five indicates that they believe the item is most likely to be ironic. The annotators' decisions should be guided

by the IIP and the "Annotator Guideline" that we provide. Although this problem appears to be supervised, we may infer from IIP's explanation that the description of contextual meaning does not have a well-defined solution. It is subjective to the listeners' / readers' judgment. Meanwhile, the "Annotator Guideline" just reinforces the fundamental standard, provides annotation examples, and discusses how to handle unclear situations. As a result, the annotation work continues to rely heavily on the annotators' subjective language sense.

Step Three: Collect all items in our Chinese irony corpus with an average score greater than or equal to 3 (the middle score). Analyze each piece for ironic elements. Apart from the constructions discussed in Step One, note down any further new constructions or other linguistic strategies that could be considered ironic. The procedure is then repeated from Step 2 using the new constructions. Put an end to the repeating until no new constructions or other devices are discovered.

Step Four: For each item in the irony corpus, the researcher will annotate its literal sentiment in accordance with its fundamental meaning. This "fundamental meaning" is derived in accordance with the IIP principle (Section 3.3.2.3). The researcher will also comment the contextual sentiment of each item. Plutchik advanced the most influential model of sentiment classification (1980). Turner(1996) offered five fundamental emotions based on this model: *happiness, anger, fear, sadness, and surprise*. He equated happiness with fulfillment, fear with aversion, anger with assertion, and sadness with disappointment. Combining two or three fundamental emotions might result in the formation of a new emotion. For instance, combining "pleasure" with "anger" can result in the new emotion "vengeance," but combining "sadness" and "anger" results in the new emotion "discontent." It is the one that is most frequently accepted. We use this model in our corpus and also refer to Chang et al(2000) .'s classification of Chinese emotion verbs and Lee's corpus analysis (2010, 2019). Apart from the fundamental emotions, if an object lacks an explicit emotional tendency (literally or contextually), the researcher will mark it as

"NA."

Step Five: Additionally, the researcher must annotate the ironic elements in each piece. These ironic components can be either ironic constructions with a high potential for irony or general expressions that are ironic in context. These core ironic components should be as brief as possible while yet conveying the ironic aim or, at the very least, the ironic potential. A single object may contain multiple ironic core components. We attempted to elicit this step from many annotators and to identify the crossing points of their decisions. However, because people's linguistic understanding on this subject varies, it's difficult to strike a balance between the decisions of many annotators. Finally, we decide to appropriately reduce the threshold and rely on the opinion of a single researcher.

Step Six: The researcher analyzes and annotates the reversal devices utilized by each item. Section 3.2 discussed the nine different types of reversal devices. Multiple reversal devices can be used to establish an irony item. When a researcher notices a usage (verbal expression, punctuation, emoticon, and so on) in an item that is similar to a certain reversal device but cannot identify whether it actually contributes to establishing the irony, the researcher may often annotate it as a reversal device in use.

Following the preceding six processes, we obtain an irony corpus of 949 entries. Each item has the following linguistic information:

1. Textual content: If the language material originates on Weibo, it includes the entire Weibo message. If the language information originates with BCC, it often consists of a single complete sentence. However, if many sequential sentences all exhibit an ironic intention or the display of irony is substantially dependent on the sentences in their immediate context, an item from BCC may include multiple sentences.

2. Average score of ironic level. The scores are provided by five annotators, two of them have a background in linguistics and the remaining three do not.

3. The ironic parts of the items. The researcher annotates this data. A single word or piece of punctuation is the smallest unit, while a complete sentence is the largest. We consider as many components as feasible.

4. The reversal devices which are used in the items. The researcher annotates this data. The interaction of two or more gadgets can establish irony.

5. The literal and contextual emotions of the whole items.

4.1.2 Items which have gaps between different annotators

Numerous items in the corpus fall within this category: their average ironic level score is greater than (or equal to 3) , qualifying them for inclusion in the corpus. However, a closer examination of the scores assigned by each annotator reveals that some annotators assigned them poor values. This condition could be caused by three distinct factors.

1. The annotator's linguistic intuition: As previously said, determining whether an expression is ironic is a subjective assessment. Certain individuals are sensitive to this, while others are not. That is why Gibbs et al. (1991) proposed a category of irony dubbed "unintentional irony" (see Section 2.1.3). We compute the mean of all the scores assigned by each annotator. The means are as follows:

Annotator A (linguistics background): 3.1;

Annotator B (linguistics background): 3.8;

Annotator C (do not have linguistics background): 3.2;

Annotator D (do not have linguistics background): 2.3;

Annotator E (do not have linguistics background): 2.8;

We can find that Annotator D and E are not very sensitive to ironic expression while Annotator B gave a lot of high score. In many of the items whose average scores are higher than 4, the only low score usually comes from Annotator D or E. For example:

a. 动用刑警抓二奶关一个月? 干啥呢? 集中培训性教育? 重庆, 真有你的。
[嘻嘻], 正的副的都叫他雷了, 呵呵 这个要火! (Score: A:5, B:5, C:5, D: 2, E:5)

b. 总统办公室也不大, 还没有俺们一个县委书记的办公室大呢 (Score: A:5, B:4, C:5, D: 4, E:2)

c. 我要拜服黑方老大, 竟然能走成这样……I 服了 you (Score: A:4, B:5, C:5, D: 2, E:5)

2. Items whose ironic meanings mainly rely on background information: if an expression's ironic intention is dependent on specific background information and it lacks another distinct structure for expressing ironic intention, it will be missed by those who do not know (or associate with) this information. For instance,

a. 想起来古代的一句话: 防民之口, 甚于防川; 川雍而溃, 伤人必多。额……
和谐社会我杂想起来这句话了呢? (Score: A:3, B:5, C:5, D: 4, E:2)

b. 看来老子要再去去认个干爹了……这年头没有几个干爹不好意思出门得……[偷笑][偷笑][偷笑] (Score: A:4, B:5, C:2, D: 4, E:4)

c. 看看祖国的天空想想自己的肺 (Score: A:4, B:2, C:4, D: 4, E:4)

In order to understand Example (a), annotators need to comprehend why the writer mentioned “和谐社会(harmony society)” here. It is not the writer’s subjective description. Actually, it is a criticism of government’s excessive propaganda. Example (b) needs to understand the ambiguity of “干爹”. Here it means “Sugar Daddy” instead of “adopted father” or “godfather”. Example (c) need to associate with the

background information of the severe air pollution.

3. Items which just have one ironic part: if there is only one ironic part in an item, it sometimes will be missed by the annotator. For example,

a. 吉祥航空 **真有你的**, 八点半的航班, 十点半了还不能飞, 不能飞, 不能下, 郁闷的一塌糊涂……南宁的朋友久等了…… (Score: A:5, B:4, C:2, D: 4, E:4)

b. 我当年也这样干过很多次, 作为一个酒店职业经理人大部分都这样做过, **得亏她不是做老鼠药的** (Score: A:4, B:5, C:2, D: 4, E:4)

c. **这下好了**……最怕的事情还是发生了……现在告诉我有事来不了 (Score: A:2, B:4, C:4, D: 3, E:5)

4.2 Analysis of the corpus data

4.2.1 Distribution of reversal devices

We counted the frequency of occurrence of each kind of reversal devices. Some of the devices are counted separately since they have more than one kinds of formalized expression methods which are distinct with each other.

The distribution is as follow:

Reversal Device	Frequency of Occurrence	Proportion
Rhetorical Reversal	586	61.7%
Expectation Reversal	115	12.1%
Evaluation Reversal	305	32.1%
Reversal of Sentiment	31	3.3%

Modal particle(Reversal of Sentiment)	48	5.1%
Reversal of Factuality	91	9.6%
Relationship Reversal	39	4.1%
Reversal from Opposite pair	24	2.5%
Reversal from satiation	72	7.6%
Idiom-like Construction (Other)	21	2.2%
Homophonic Word(Other)	23	2.4%
Quotation Mark(Other)	32	3.3%
Other Punctuations(Other)	79	8.3%
Construction as Irony Mark (Other)	26	2.7%
Emoticon (Other)	235	24.8%
Total	1727	NA

Table 2. Frequency of occurrence and proportion of reversal devices

According to the statistics, people frequently employ multiple techniques to convey their ironic intentions. Each item has an average of 1.82 tools. This could be because two or more devices can validate one another, thus establishing the existence of ironic meaning. However, people would typically avoid using too many gadgets in a single piece of information, as this will lengthen the piece or result in repetition.

The most often employed tactic is rhetorical reversal. Rhetorical questions are distinguished by the fact that their forms and meanings are frequently diametrically opposed. That is, people utilize rhetorical questions to express negative meanings in assertive ways and vice versa. This characteristic is ideally suited to the display of

irony. Meanwhile, a rhetorical question is a type of communication approach that is frequently employed to emphasize an individual's goal. According to Ding et al. (1961), rhetorical questions are more effective in expressing the same ideas than conventional assertive/negative statements. This is also consistent with the functions of irony, since when people use irony, they typically convey more powerful emotions. Additionally, the pragmatic purposes of rhetorical questions extend much beyond mere emphasis. Guo (1997) asserted that when employing Chinese rhetorical questions, at least three conditions must be met:

Condition 1: An action/event X happens. Someone consider this action/event is right while the speaker consider it is wrong;

Condition 2: Here exist a presupposition Y. Y is a proposition which the speaker considers as obviously true. Meanwhile, the speaker considers the listener also admits Y is ture.

Condition 3: The speaker considers there are obvious and absolute logic relations between the action/ event X and the presupposition Y: a) If Y is true, then X is unreasonable (false); b) X can be true only if the negative proposition of Y is true.

As a result, he believes that rhetorical questions have at least two possible interpretations: the dominant interpretation is "Y is true," while the recessive interpretation is "X is unreasonable." He coined the term "conversational implicature" for the recessive one. He contended that the speaker's primary goal is to express the conversational implicature, not the dominant meaning. This idea also explains why individuals frequently utilize rhetorical questions to express ironic meanings, as they satisfy two of irony's most critical requirements: indirect and easily experienced reversals. According to Liu and Tao (2011), Chinese rhetorical inquiries can be classified as expressions of reminder, surprise, resistance, and reprimand when categorized by negative degree. According to their description, rhetorical questions expressing astonishment and censure are almost always ironic.

Ironies containing rhetorical reversals are frequently communicated through fixed patterns, making them reasonably easy to recognize automatically.

The second frequently used device is evaluation reversal. It is easily comprehended because adjectives and adverbs communicate sentiments that are more easily recognized and absorbed by listeners/readers. The use of evaluative adjectives and adverbs by speakers serves as a form of dominant reminder. It emphasizes that "here I am expressing my viewpoint" by making plain evaluative statements (although the real evaluation may be expressed indirectly). Martin and White (2005) identified evaluative meanings using a variety of classification schemes. They can be classified into personal emotion (such as like - dislike), societal regulation (such as lawful - illegal), and aesthetic taste, according to the evaluation standards (such as beautiful - ugly). They might be classified as positive or negative depending on the speakers' attitudes. They can be classified as strong, moderate, or weak based on the graduation of the evaluation. And they can be classified as dominant or recessive depending on the degree of clarity of the expression. The recessive evaluations are the most likely to be ironic of these types. Zhu (2018) provided a list of syntactic and lexical structures that may contain recessive evaluations. The syntactic structures part contains sentence patterns like rhetorical questions and constructions like "这 + noun + verb + 的" (see 3.2.4). And the lexical means part contains adverbs like "亏(luckily)" and adjectives in ironic expressions like "好(good)" in some constructions or special usages. Irony is one of the basic functions of recessive evaluation, so that evaluation reversals are also frequently-used.

Most of the evaluation reversal can be detected by explicit markers like "亏 (luckily)", "这下可好(now it is good)", "真有你的(it is so brilliant of you)". However, some of them need us to refer to context information or even world knowledge to comprehend the ironic intentions. For example,

[58] 也太强大了[哈哈], 什么牌子绿茶? 比三鹿奶粉还牛...[哈哈]

It is so strong [haha]. What's the brand of the green tea? More awesome than Sanlu milk powder...[haha]

"强大(strong)" is a positive evaluation and there is not any special construction in this item which may imply ironic meaning. However, "三鹿奶粉(Sanlu milk powder)" here is a context information. It was a famous Chinese brand but finally bankrupted because of food safety incidents. According to Chinese people's common sense, "三鹿奶粉(Sanlu milk powder)" is a synonymous of shoddy or even toxic products. Therefore the statements "比三鹿奶粉还牛(more awesome than Sanlu milk powder)" and "也太强大了(it is so strong)" are actually negative evaluations. However, without the knowledge of "三鹿奶粉(Sanlu milk powder)", even native speakers also cannot detect this irony.

[59] “如果反腐都靠情妇现在取得不了这么大成绩”。的确还有小偷的功劳呢!

"The anti-corruption campaign can't achieve such a big achievement if they only rely on mistresses". Thieves also make contributions indeed!

"功劳(contribution)" is a positive evaluation word. This piece contains no ironic construction and does not reflect any negative sentiment or attitude directly. We need to appeal to common sense when we say that "anti-corruption should be a government responsibility," but mistresses and thieves are now contributing to the ironic aim.

How to find these ironies mechanically will be a difficult task.

Expectation reversal is another type of device that occurs more frequently than once in a hundred. Typically, imperative sentences are used to communicate it. Implicit conduct is, in general, a binary activity. It occurs in two situations: the speaker urges the listener to perform actions that the listener did not perform; and the speaker urges the listener to discontinue performing actions that the listener is now performing. Ironies can be used to induce expectation reversals since they occur

physically in the first situation but contextually in the second. For instance, in the ironic term "再打我一下试试! (Try to hit me again!)", the speaker is literally urging the listener to do something (beat me) that he or she did not do. The true meaning of this term, however, is a threat. In fact, the listener has struck the speaker, and the speaker is threatening the listener to stop. Imperative phrases can be used to convey a variety of messages, including command, threat, order, suggestion, instigation, invitation, warning, reminder, admonishment, consultation, request, provocation, and entreaty. According to our corpus analysis, ironies that include expectation reversals typically convey threat or provocative objectives. These types of ironies are easily detectable due to their consistent constructions.

Reversal of factuality occurs frequently as well. According to conventional rhetoric, the most common type of irony is counterfactual assertions. Their concept of "counterfactual," on the other hand, is quite broad. Any type of communication, including forceful, directive, commissive, and declarative language behavior, can be termed "counterfactual" as long as their statements are false (even those that do not accurately reflect the speaker's true evaluation/ sentiment). According to our definition, it refers to assertions that directly contradict objective facts or common sense. Utilizing these kind of statements might easily leave listeners/readers perplexed, as the claims contained inside are blatantly incorrect. To attain rationality, listeners/readers will begin to cast doubt on the true meanings. Then the reversals will occur naturally. However, this type of irony can be presented through a variety of broad constructions that are difficult to identify as ironic statements.

Additionally, emoticons usually appear in ironic expressions as an assisting device. However, they are unable to establish irony on their own (will introduce this phenomenon latter).

Devices classified as "Other" include the homophonic word, quotation mark, idiom-like construction, and irony marker. However, this does not mean we may

disregard them. For instance, if a sentence contains a homophonic word, it is quite likely that the speakers mean to be ironic. This is because some homophonic words were created to convey things that people wish to dislike but are hesitant to criticize outright (it is also an important function of irony). While some homophonic words are solidified (for example, "河蟹(river crab, whose original word is harmony)", "呕像 (the object of emesis, whose original word is idol)"), the speaker frequently uses them randomly (for example, "羊屎(sheep droppings, whose original word is CCTV)", "熊撞 (bear strike, whose original word is grand and magnificent)"). Automatic recognition of randomly used homophonic words is difficult. Nonetheless, there are devices that are immediately detectable: while idiom-like constructions and irony markers are not frequently used, their purpose makes the statements or settings in which they occur naturally ironic.

4.2.2 Co-occurrence of different devices

We also analyze the co-occurrence frequency of each two devices. Since the co-occurrence models are too diversified, here we just list the models whose occurrence number is larger than 15.

Reversal Device One	Reversal Device Two	Frequency of Co-occurrence	Proportion
Rhetorical Reversal	Evaluation Reversal	64	6.7%
Rhetorical Reversal	Reversal of Factuality	37	3.9%
Rhetorical Reversal	Satiation Reversal	39	4.1%
Rhetorical Reversal	Punctuation (Other)	43	4.5%
Rhetorical Reversal	Emoticon (Other)	78	8.2%

Expectation Reversal	Emoticon (Other)	41	4.3%
Evaluation Reversal	Emoticon (Other)	56	5.9%
Evaluation Reversal	Homophonic (Other)	20	2.1%
Evaluation Reversal	Relationship Reversal	24	2.5%
Satiation Reversal	Punctuation (Other)	17	1.8%
Reversal of Factuality	Modal particle(Sentiment)	16	1.7%

Table 3. Frequency and proportion of co-occurrence of two different reversal devices

Given that the rhetorical reversal is the most often employed device, it's unsurprising that it usually occurs in conjunction with other methods. When these two devices co-occur with evaluation reversal, the majority of scenarios are straightforward connections of these two devices. That example, in one sentence, utilize rhetorical reversal while in another, use evaluation reversal. For instance,

[60] *你以为你是谁? 可以不顾别人的感受为所欲为的, 现在好了, 活该你!*

Who do you think you are? Can do anything you want without consider about others' feelings. Now it is good! It serves you right!

In Example [60], these two devices coincidentally appear in the same Weibo message. They work in tandem to establish the message's ironic meaning, but have no direct effect on another's statement of ironic intention. For instance, if we utilize these two gadgets in isolation:

[60a] *你以为你是谁? 可以不顾别人的感受为所欲为。*

Who do you think you are? Can do anything you want without consider about others' feelings.

[60b] *你不顾别人的感受为所欲为的, 现在好了, 活该你!*

You do anything you want without consider about others' feelings. Now it is good! It serves you

right!

Both [60a] and [60b] are still should be considered as irony. By using these two devices separately, we just lost part of the sentiment intensity but the ironic intensions are still there. However, there are also some expressions which can combine these two devices. For example:

[61] *那你不是好棒棒? 要不要给你鼓鼓掌?*

You are so great, aren't you? Do I need to applaud you?

The adjective "(excellent)" and the verb "(applaud)" give this phrase a positive connotation. Meanwhile, by employing rhetorical questions, the evaluation is reversed, and both evaluation and rhetorical reversal are contained inside the same expression.

The majority of the "counterfactual" sections that may result in factual reversals contain occurrences or propositions that appear to be extremely ludicrous. Even if these events or propositions are true, they must violate people's common sense. When used in conjunction with these types of remarks, rhetorical reversals typically serve as the component that demonstrates speakers' intentions of reprimand or serious interrogation, while factual reversals serve as the "facts" that lead to those intents.

[62] *违规但是合格? 有人敢吃这种冰激凌? ? ?*

Illegal but qualified? Anyone dare to eat this kind of ice-creams?

[63] *现在的人就是乐意被愚弄。你们是不是不被愚弄就不爽?*

Nowadays people are willing to be deceived. Would you feel uncomfortable if you're not deceived?

The first sentences in the preceding two instances state propositions that appear to contradict people's common sense: "illegal items are completely qualified" and "no one wants to be duped." Whether these ideas are true or false in the context of the authors, the reversal of factuality has been generated. The subsequent rhetorical

reversals heighten the irony and underscore the writers' deep emotions.

To some extent, rhetorical reversal and satiation reversal are synonymous with statements that repeatedly ask the same question. For instance, [18] (你相信吗? 你相信吗? Do you believe?) is one of the examples, yet we label it as satiation reversal due to the single interrogative sentence (in order to turn to a rhetorical question, it has to rely on satiation reversal). In other instances, rhetorical questions or their sentence patterns may be repeated, resulting in satiation. For instance,

[64] 谁叫你叫何江涛? 谁叫它叫招商银行? 谁叫你敢用信用卡? 不搞点霸王条款, 你还真的当自己成上帝了? !

Who let you named He Jiangtao? Who let it called China Merchants Bank? Who let you dare to use credit card? Without these imparity clauses, you really think you are the god, aren't you?

Rather than asking the same question repeatedly, this message repeats the same sentence pattern. In this context, the sentence pattern "谁叫你...(who let you ...)" is not an interrogative question requiring an answer to the question "who." It is a construction that means "you should not..." (for example, "谁叫你敢用信用卡(Who let you dare to use credit card?)" means "you should not use a credit card") or "you are helpless because..." (for example, "谁叫它叫招商银行? (Who let it called China Merchants Bank?)" means "you are helpless because that is China Merchants Bank"). This construction is ironic in nature, and its recurrence heightens the ironic degree of the entire statement. Meanwhile, by repeating rhetorical inquiries rather than broad declarative sentences, the expressions gain "power" (Ding et al., 1961). As a result, these two mechanisms can work in tandem to establish irony.

Evaluation reversal is a phenomenon that can occur in conjunction with homophonic words and relationship reversal. Although the frequency of these two pairings is low in comparison to other pairs, when we evaluate the frequency of homophonic words and relationship reversals, we discover that 87 percent of homophonic words and 61.5 percent of relationship reversals are associated with

evaluation reversals.

Perhaps we might deduce the reasons for the usage of homophonic terms and premature honorifics to convey ironic connotations. The majority of ironic Homophonic Words in our corpus originate in cyber language. Originally, they were used to mock concepts or slogans advanced by government or other groups in an oblique manner. With the spread of this usage, people began applying it to words in all parts of speech (such as adjectives (雄壮(grand) versus 熊撞(bear strike)), verbs (激愤(anger) versus 鸡粪(chicken droppings)), common nouns (偶像(idol) versus 呕像(the object of emesis)) and proper noun (央视(CCTV) versus 羊屎(sheep droppings))). We can observe that the majority of their original words are positive, as people are not need to produce a homophonic version of a negative word in order to convey a negative implication. As a result, homophonic words have the potential to cause evaluation reversals.

Similarly, utilizing honorifics or intimate salutations indicates that the speakers/writers have a positive opinion of the objects and hence wish to show them respect or kindness. To effect relationship reversals, contexts must provide evidence to inform listeners/readers that the speakers'/writers' true judgments are negative. Without a doubt, evaluation reversal is an effective technique for presenting these evidences. Using evaluation reversal in place of straight negative statements not only maintains context coherence but also heightens the ironic degree.

Emoticons are frequently used in conjunction with other devices. Indeed, all emoticons are employed in conjunction with other devices in our corpus. Without specific written forms, their precise meanings and even existences are difficult to define. Further trials (which will be discussed in Chapter 6) demonstrate that their existence has a negligible effect on annotators' perceptions of ironic levels, to the point where they can hardly sustain an irony independently. However, we continue to view them as an assistive technique because they are frequently used in ironic

contexts and some specific emoticons might actually bolster judgments.

Additionally, modal particles are always utilized in conjunction with other devices in our corpus. In comparison to emoticons, they have explicit shapes and meanings. However, without contextual assistance, we cannot determine whether they are in their initial attitudes or are experiencing reversals, as the meanings they express are too limited.

4.2.3 Emotions of ironic statements

Based on Turner's (1996) classification as well as Chang et al.'s (2000) and Lee's (2010, 2019) further studies on Chinese, we annotate the literal and contextual emotion of each item. The frequency of the emotions are as follows:

1) Frequency of the emotions in literal meanings:

Emotion	Frequency	Proportion
Happiness	268	28.2%
Anger	204	22.5%
Fear	29	3.1%
Sadness	36	3.8%
Surprise	13	1.4%
Happiness + Fear	44	4.6%
Happiness + Anger	37	3.9%
Fear + Sadness	68	7.2%
Anger + Fear	130	13.8%

Sadness + Anger	34	3.6%
NA	86	9%

Table 4. Frequency of different emotions in the literal meanings of the items

2) Frequency of the emotions in contextual meaning

Emotion	Frequency	Proportion
Happiness	69	7.3%
Anger	366	38.6%
Fear	18	1.9%
Sadness	55	5.8%
Surprise	47	5%
Happiness + Fear	53	5.6%
Happiness + Anger	31	3.3%
Fear + Sadness	42	4.4%
Anger + Fear	36	3.8%
Sadness + Anger	153	16.1%
NA	79	8.3%

Table 5. Frequency of different emotions in the contextual meanings of the items

From a literal standpoint, we can see that happiness and anger are the most frequently manifested emotions. Among all the sensations, happiness and anger are the most direct indicators of the speaker's attitude. This is consistent with irony's characteristic: in ironic communication, people frequently express subjective attitudes about the object being discussed. They wish to express their attitudes in a reversal

through the use of irony. Using words or phrases that express happiness or anger directly is a "labor-saving" emotion. Additionally, the emotion "anger + fear" is frequently employed, as "anger" and "fear" combine to generate the emotion "suspicion." As is well known, rhetorical reversal is the most often employed tactic in our corpus, resulting in the literal presence of the emotion of mistrust in a large number of things. As can be seen from the table, when we consider only basic emotions, the proportions of positive (happy) and negative (anger, sadness, and fear) emotions are relatively balanced, despite the fact that the types of negative emotions are more diverse.

From a contextual standpoint, rage is the most often encountered emotion. It is in the dominant state because the frequency with which the second most frequently utilized emotion is expressed is less than half of that of the first. The second often occurring emotion is likewise negative and is associated with anger: "sadness" and "anger" combine to generate the new emotion "discontent." Additionally, this emotion shows displeasure with and blame for the objects. In comparison, whereas the positive emotion "happiness" accounts for 28.2 percent of literal meanings, it accounts for only 7.3 percent of contextual meanings. This large disparity demonstrates that people frequently employ irony to express negative emotions. As a strong and outward negative emotion, anger typically appears in contextual contexts. This could indicate that people use irony to express external emotions in a somewhat internal manner.

Additionally, the models of transition between literal and contextual meanings are studied. Due to the diversity of transition models, we will only discuss the main five types of data:

Literal Emotion	Contextual Emotion	Frequency	Proportion
Anger	Anger	177	35.8%
Happiness	Anger	159	16.8%

Happiness	Sadness + Anger	58	6.1%
Anger + Fear	Sadness + Anger	42	4.4%
Anger + Fear	Anger	41	4.3%

Table 6. Frequency of emotions transition models between literal and contextual meanings

As can be seen from the data, the top five models account for 62.1 percent of the corpus. The majority of idioms whose literal emotion is fury do indeed convey the emotion of anger. In comparison, 59.3 percent of literally happy expressions transform into rage, whereas 21.6 percent of literally happy expressions reflect "sadness + anger (discontent)" emotions. By and large, irony converts 98.7 percent of literally positive sentences in our corpus into contextually negative comments. It demonstrates that, whereas both "using positive terms to communicate negative meanings" and "using negative expressions to express positive meanings" are ironic functions, people nonetheless choose the former in practice. For instance,

[65] 我等了一年你就给我看个这？果然是让人激动啊。。。。。

I wait for one year and you just show me this? It is really excited...

The word "excited" is associated with the emotion "happiness," whereas the phrase "just show me this" implies discontent or perhaps wrath.

Similarly to "happiness," a number of objects whose literal emotion is "anger + fear (suspicion)" become "anger" or "sadness + anger." As previously stated, distrust typically arises as a result of the frequently employed rhetorical reversal. However, because the majority of ironic rhetorical questions are intended to reprimand rather than to cast doubt, their true emotion will be wrath or discontent rather than distrust. For instance,

[66] 十年后的央视，你敢直播么？你敢么？

The CCTV after ten years, do you dare broadcast it live? Do you dare?

The literal translation of this message is "doubt" about the CCTV's ability to conduct a live interview. However, through the use of rhetorical questions and satiation reversal, readers can be assured that the writer does not want to cast doubt. We can deduce from the broader context that the true objective of this letter is to express dissatisfaction and disgust with what CCTV did to his/her favorite writer.

Chapter 5 Construction analysis

In Chapter 2 we introduced construction grammar and know that researchers who hold this point of view consider that languages are made up of a lot of form-meaning pairs. For some of these pairs, the overall meanings and functions of them are broader than or different from the simple combination of their components. These pairs are constructions.

In Chapter 4 we mentioned that the basic method we extract ironic expressions from large-scale corpora based on ironic constructions. Sentences which contain these constructions are more likely to be ironic and their ironic intentions are more easily to be captured and comprehended by listeners/readers. From Construction Database of Modern Chinese (CDMC, Zhan et al., 2016) we find sixteen constructions which are considered as highly possible to be ironic. And then, during the process of building the corpus, we find more ironic constructions from language instances. Finally, we find 56 ironic constructions. In this chapter, we will detailedly analyze them.

This thesis adopt the concept of Goldberg (1995, 2006). We believe that the crucial feature of a “construction” is lack of predictability. Any linguistic unit whose contextual meaning is different from its literal meaning can be seen as a construction. However, since the expression of ironic intention need to (more or less) rely on context and the stable unit of IIP is sentence, the smallest unit of “construction” in this thesis is “word” while the largest unit is “sentence”. Constructions which in “morpheme” or “paragraph” level are not taken into consideration.

Besides that, constructions usually contain variables and constants. Variables are the parts which are unfixed. The specific content of a variable is optional in given range. For example, in the construction “有什么 v. 头”, “v.” is the variable. It means that in specific instance, this part of the construction is optional in the range of “verb”. On the contrary, “有什么(have what)” and “头(suffix, means "the meaning/worth of"

in this construction)” are constants of this construction. They cannot be replaced by other words, otherwise this construction cannot be established.

Some constructions do not have variable (e.g. word level constructions like 道貌岸然(sanctimonious); phrase level constructions like 滑天下之大稽(world level ridiculous); and sentence level constructions like 你敢! (How dare you!)) while some others do not contain constant (e.g. Tang and Chen (2014) considered that “high intensity adverb + positive adjective” often be used to express ironic intentions. Therefore, when this structure is used to be ironic, it can be seen as a construction). However, we find that the range of the latter kind are too broad. In practical uses, they have too many instances which express totally different meanings. Hence in this thesis, we just include the constructions which have at least one constant.

In general, the ironic constructions we will introduce in this chapter are the language units whose contextual meanings cannot be predicated by their literal meanings and can often provoke the process of reversal of readers/listeners. The smallest unit of them is “word” while the largest unit is “sentence”. Meanwhile, there should be at least one constant in each of them.

By the reversal devices they used, we can categorize them into six kinds. And according to the sources they emerge from, they can be divided to traditional usages and cyber usages.²

5.1 Ironic constructions which use rhetorical reversal

Most of the sentence patterns of rhetorical questions have ironic potential. However, some of them are more likely to be ironic. Seven of them are included in

² In the following part of this thesis, "n." represent "noun", "v." represent "verb", "a." represent "adjective", "r." represent "pronoun", "np." represent "noun phrase", "vp." represent "verb phrase", "ap." represent "adjective phrase", and "X" and "Y" represent this part can be different words/phrases which are in different kind of part of speech.

CDMC. All of these seven constructions are traditional usages.

5.1.1 np. +有 这么+ vp. + 的吗 / 有+ np. +这么 + vp. + 的吗

np. be like this vp. (modal particle)/ have np. like this vp. (modal particle)

This is the combination of the two construction " np. +有这么+ vp. + 的吗" and “有你这么 + vp. + 的吗” in CDMC.

In CDMC, the former construction is rephrased as "这么+ vp. + np. + 是不对的 (it is wrong to + vp. + np.)" whereas the latter is rephrased as "你不应该这么 + vp. (you should not + vp.)". However, in practice, the true meanings and functions of this construction go beyond stating that "something is incorrect/should not be done." From a purely grammatical standpoint, this construction can function as a standalone sentence or as a clause within a complex sentence. Additionally, it can be used as a subject-predicate object.

In the first form of this construction, the verb and noun can combine to produce a predicate-object structure (for example, "球赛有这么看的吗(does the ball game should be watched like this?)", the verb "看(watch)" and the noun "球赛(ball game)" can combine to form the predicate-object structure "看球赛(watch a ball game)". The pronoun "这么(as this)" refers to the predicate-object structure's structure. Occasionally, people will place the noun after the verb, resulting in the construction "有这么+ v. + n.+ 的吗". The overall grammatical and semantic elements of this variant are identical to the original form.

In comparison to the non-ironic phrasing"n.+没有这么+ v. +的 (n. cannot/ shouldn't be v. like this)", the rhetorical reversal intensifies the expression's negative intention and highlights speakers'/writers' subjective judgements. The rhetorical construction accentuates rebuke, hatred, and persuasion as pragmatic functions. Construction grammar is concerned with people's cognition in relation to a certain context. This construction might be seen as a scene relating to the speakers'

experience or presuppositions. Because the speakers' experiences or presuppositions are violated by other people's behaviors or remarks, the speakers are aroused and subsequently respond negatively to the stimulations.

[67] 负点责任吧! 业绩有这么冲的吗?

Be a little bit more responsible! Does the performance should be achieved like this?

The speaker makes the assumption that performance should be accomplished in a responsible manner. Clearly, the listener employed an incorrect method to accomplish the goal, and this action significantly deviates from the speaker's reasoning. As a result of the speaker's use of this construction, a negative response is expressed. In comparison to the declarative statement "业绩没有这么冲的(performance should not be achieved like this)", this ironic term demonstrates that the speaker believes the listener is likewise aware that the things he/she did were incorrect yet continues to do so. The intention of rebuke and disgust is emphasized further.

The second variant of this construction is a variant of the first, but with some pragmatic distinctions. Contrast the following statements:

[68] a. 有 你 这么 说话³ 的吗?

be you like this talk (modal particle)

Is there anyone who talking like you?

b. 话 有 这么 说 的吗?

words be like this talk (modal particle)

Does the words should be talked like this?

³ "说话" is, initially, a verb phrase which is formed by the verb "说(talk/ speak)" and the noun "话(words/ language expressions)". However, since it is so frequently-used, now this verb phrase is more similar to a verb which means "talk/ speak". It is a separable word so people can use the components of this verb separately like the usage in Example [68b].

Similar to the previous form, [68a] refers to a circumstance in which the speaker assumes that people should communicate in a certain way (for example, courteous, kind, or thankful), but the listener's behaviors (for example, tone or gestures) or remarks contradict these presuppositions. The speaker is then stimulated, eliciting a negative response. However, in comparison to [68b], which use the construction "n. + 有这么 + v. + 的吗", by emphasizing the individuals responsible for the stimulation, the blame intention in [68a] is more directed toward the individuals, whereas [68b] is more directed toward the manner. That is, [68a] frequently criticize "you" and your actions, whereas [68b] frequently blame the method in which the speaker speaks.

5.1.2 np. + 算 老几

np. count order of seniority

In CDMC, this construction is rephrased as "np. + 不配 (np. be not qualified to)". When used as a rhetorical inquiry, this construction is highly colloquial and is rarely encountered in written language. It conveys the speakers' profound displeasure and contempt for the objects referred to by the "noun phrases." As a clause-level construction, its grammatical roles are comparable to those of the previous two constructions, which can also be used as a standalone sentence, clause, or object.

Literally, this is an interrogative sentence in which others are questioned about the sequence of the "noun phrase." However, the speaker is not looking for an answer. Its construction meaning is "the np. has no status" or, as demonstrated in CDMC, "the np. is unqualified to accomplish something / the np. is unworthy of something." This ironic remark is accompanied with a metaphor. The literal definition of "老几" is one's rank of seniority among siblings and sisters; for instance, "老大" refers to the family's firstborn. People use this construction to associate the order of seniority with

the rank of the status. While the literal and contextual meanings of "老几" are incongruent, others can grasp the contextual meaning through that mapping.

5.1.3 r. + 以为/当 + r. 是谁

r. think r. be who

This construction's original form in CDMC is "你以为你是谁," and its rephrasing template is "你不应该这么做 (you should not do this)." However, in practice, the pronoun "你(you)" can be substituted for any other second/third person pronoun. Particularly when the honorific second-person pronoun "您(you)" is used. Then a combination of rhetorical and relationship reversal will occur. The ironic factor will be amplified further. Apart from that, the variables in this construction must be identical pronouns.

From a grammatical standpoint, this construction is a compound sentence comprised of the main clause "r. 当/以为... (somebody think(s) that)" and the subordinate clause "r. 是谁(who you are/ he is/ she is/ they are)". Occasionally, people will add a modal particle such as "啊" or "呀" at the end. Due to the fact that this construction has a complete and complicated syntactic structure, it is frequently used as a stand-alone sentence. However, it can be used as a clause as well.

现代汉语词典(Modern Chinese Dictionary (the seventh edition), Institute of Linguistics, CASS (Eds.), 2016) shows "当" can mean either "以为" or "认为" (p. 262). Here we use "think" instead of "consider" as the translation of both "当" and "以为" since in this construction, the meaning of it is closer to "以为". In Chinese, the word "以为" is usually used in the judgments which are disaccord with the facts while the word "认为" is used in the judgments which are consistent with the facts (Lv, 1980). Therefore, the use of "以为" build a negative presupposition in this construction: what you "think" is not true. That is, although this construction is in the

form of interrogative sentence, it usually has to be a rhetorical question since the speakers/writers already have a negative presupposition. However, in some specific context, the word "以为" can be comprehended as "consider". It is a usage of "以为" in traditional Chinese. For example, the title of an article in the magazine *Think Tank of Science & Technology* (2005(06)) is "职业经理人，你以为你是谁？ (Professional manager, who do you think you are?)". We know from the article's content that the writer does not want to imply that "professional managers lack status" or that "professional managers should abstain from doing something." The essay is genuinely asking professional managers to consider their roles in the organization and hopes they can provide responses. Although this usage is only understandable in a very specific context, it demonstrates that this construction has a non-ironic meaning.

As is well known, when used ironically, this question does not require an answer. Typically, when the speaker responds to "谁(who)", he or she already has a presumption. This presupposition can be a specific person or identity, or it can be described as the individuals who have certain rights. It may not even be mentioned verbally, and individuals must acquire this preconception through other means.

[69] a. 你以为你是谁？！你不是上帝，有时不要太过分！

Who do you think you are?! You are not the god. Sometimes don't be too excessive!

b. 你以为你是谁？可以不顾别人的感受为所欲为的，现在好了，活该你！

Who do you think you are? Can do anything you want without consider about others' feelings. Now it is good! It serves you right!

c. 开公交车的这么跩，你以为你是谁？你家里没老人？

A bus driver can be so supercilious. Who do you think you are? Don't you have elders in your family?

In Example [69a], we can deduce from the context that the speaker believes the

listener believes "I am the god," and hence his/her behavior is "extreme." [69b] speaker]'s believes the listener believes "I am the person who can do anything I desire." Example [69c] does not explicitly state the speaker's presupposition. However, by stating that the bus driver is "supercilious," we can deduce that the speaker believes the bus driver has a distinctive identity that allows him/her to be supercilious. However, regardless of who "who" is, this construction demonstrates that the speakers believe the listeners' status or competence does not correspond to this "who."

By employing this construction, individuals can persuade listeners to compare their actions to those who possess the power/ability to perform this thing. The word "(think)" implies that the listeners' cognitions of their identities are incorrect, and so that what they did is incorrect.

5.1.4 有什么 + v. + 头

have what v. (suffix, means "the meaning/worth of" in this construction)

In *现代汉语词典* (Institute of Linguistics, CASS (Eds.), 2016, p.1319), the affix "头" can be used as suffix of general noun or suffix of noun of locality. When used as suffix of general noun, it can follow a nominal root, a verbal root or an adjectival root. The second situation is its usage in this construction. However, most of the highly nominalized words like "念头(think + tou, means thought)" and "奔头(rush + tou, means prospect or target)" cannot be used in this construction since they have generated new solid meanings. But there are some exceptions. Some roots which can be used independently as a verb may have two different meanings. An example is "来头(come + tou)". As a highly nominalized term, it refers to someone or something's origins. However, it can be used in this construction to signify the significance/value of coming here. The suffix "" is not completely grammaticalized in this construction. It retains its own significance.

The variable in this construction is a single verb. It is almost impossible to use a complicated verb phrase in this context, and even disyllabic verbs are rarely used.

In CDMC, the rephrasing template for this construction is "不值得 + v. (not worth to + v.)". Indeed, it contains a divergence from the context's presuppositions.

[70] 大家都挺败兴, 那个破地方, 有什么玩头?

All of us are disappointed. That shabby place, what is the worth of sightseeing?

The setting of Example [70] informs readers that the company will conduct a sightseeing activity. The expectation of the public is that the location for sightseeing should be beautiful. However, the writer later describes the location as "shabby." Because the fact contradicts both the readers' and "all of us" expectations. The writer employs the phrase "有什么玩头(what is the value of touring)" to express disappointment and dissatisfaction with the construction. In comparison to the declarative expression "没什么 + verb + 头 (it is worthless to + verb)," this construction draws attention to the speakers' subjective emotions. Although in the form of an interrogative sentence, when used ironically, this construction does not require an answer and merely expresses the speakers' negative sentiments toward the subjects' worth.

5.1.5 有什么好/可/值得 + vp. + 的

have what worth vp. (auxiliary word)

When used as rhetorical questions, the constructions "有什么好 + vp. + 的" and "有什么 + v. + 头" have syntactic and semantic similarities (their rephrasing templates in CDMC are also same). They do, however, have certain distinctions. As with "有什么 + v. + 头", this construction contains a divergence from the context's presuppositions/ assumptions. It is the subjective rejection of the worth of doing

anything by the speakers, implying "do not (need to) do something." In comparison to the declarative expression "没什么好 + verb + 的 (it has no worth to + verb)", it emphasizes the speakers' subjectively intense mood rather than declaring a fact.

In contrast to "有什么 + v. + 头", this construction is more likely to be understood as an interrogative sentence in contexts where both interrogative sentences and rhetorical questions are acceptable (non-ironic meaning). For instance, when people say,

[71] a. 这家饭店有什么好吃的?

b. 这家饭店有什么吃头?

What is the worth of eating in this restaurant?

Both [71a] and [71b] can be interpreted as "What is the worth of eating in this restaurant?" However, the true meaning of [71a] is either "what are the restaurant's most delectable meals" or "this restaurant is not worth eating," whereas the true meaning of [71b] is simply "this restaurant is not worth eating." Without further context, when people wish to show irony, they can do so more readily by utilizing "有什么 + v. + 头" than "有什么好 + vp. + 的".

Additionally, "有什么好 + vp. + 的" has variants. Although the majority of the elements used to populate the variable "vp." are verbs/verb phrases referring to figurative motions, it can also be filled with abstract psychological verbs/verb phrases such as "想(think)" and "担心(worry)". The "vp." can even be substituted for adjectives such as "激动(excited)" and "紧张(nervous)". Additionally, the word "好" in this construction can be replaced by "可" or "值得", because the meanings of all three of these words in this construction are "worth," they can be used interchangeably in the majority of practical applications of this construction.

5.1.6 这 叫/算 什么 + X + 啊

this call/regard as what X (modal particle)

The rephrasing template for this construction in CDMC is "X + 名不副实(X + is not deserving of its name)". This construction can also be interpreted in two distinct ways when used as an interrogative sentence. For instance, consider the expression

[72] 这叫什么鸟啊?

This expression is unclear in isolation. It has at least two distinct interpretations. If the speaker meets a bird for the first time and wishes to inquire about its name, the contextual meaning of this term is "What is the name of this bird." This is the interrogative mode of expression for this construction. This is not an ironic usage. However, when the speaker encounters a bird that is unable to fly and believes that this bird does not conform to his/her expectations of birds, the contextual meaning of this term is "It should not be called a bird." It is a speaker's subjective negative. This rejection is similarly motivated by the expectation that the facts contradict the speakers' expectations.

When another expression is used to fill the variable "X," it can also be unambiguous. For instance, if the "X" is a noun that is sufficiently detailed and does not require a more specific name, the expression is unambiguous (for instance, "这叫什么服务啊(What is this called service?)" can be ambiguous while "这叫什么送货上门服务啊? (What is this called home delivery service?) has only one meaning: "it should not be called home delivery service," because "home delivery service" is already a detail). When the "X" is replaced with adjectives, the sentence takes on an ironic tone (for example, "这叫什么浪漫啊(What is this called romantic?)" might be understood as "it should not be termed romantic," as adjectives are also unnamed words).

When the variable "X" is enclosed in quotation marks (for example, 这叫什么

“专家”啊?), regardless of whether the phrases enclosed in the quotation marks are sufficiently specific, this construction can be somewhat ironic. It is a combination of the assistant irony indicators that can help reinforce the ironic purpose and raise the expression's ironic level. The word "叫" may also be used for "算(regard as)".

5.1.7 r. + 又 知道/懂 了

r. again know/understand (auxiliary word)

Although this construction does not take the form of a rhetorical or even a direct question, it is nonetheless classified in this section. In comparison to the previous constructions, this is a relatively recent construction that is primarily utilized in cyber language. According to CDMC, this construction takes the form "你又知道了" and is employed to convey negative evaluation; the rephrasing template is "你怎么总说你知道(why you always say you know)".

According to Qu (2006), the adverb "又(again)" might convey the speaker's sentiment. He cited the following example to demonstrate his point:

[73] 你昨天才看了一场电影，怎么又要去看了。

You just watched a movie yesterday. Why you are going to watch movie again.

According to Fang (2017), "又(again)" can reflect negative emotions only when used in conjunction with the interrogative word "怎么(why)". She asserted that the structure that best expresses the speaker's negative attitude is the rhetorical question "怎么又...(Why...again?)" rather than the single adverb "又(again)". Additionally, she argues that rhetorical questions are critical for bridging negative evaluation situations.

We adopt Fang's point of view. Although this construction employs the adverb "(again)" instead of the rhetorical question sentence pattern "怎么又...(Why...again?)", we may deduce from the rephrasing template that this

construction is still a rhetorical inquiry "你怎么又知道了(why you know again)". The speaker's true intention is neither to present a fact ("you know something") nor to inquire as to why "you know so many things." Anything is intended to convey a negative evaluation of the speaker, such as "you are so arrogant (as if you believe you know everything)" or "you genuinely don't know it." We do not categorize this construction as an evaluation reversal because it does not contain the word "evaluation" and its literal meaning lacks a clear evaluation inclination. The implicit rhetorical sentence structure "怎么又...(Why...again?)" contributes to both the negative tone and the ironic tone.

The rest constructions in this section come from language materials in practice and are not included in CDMC.

5.1.8 r. +以为/当+ r. +是+ np. / r. +以为/当+ r. +在 + vp./np.

r. think r. is/are np. / r. think r. is/are doing(vp.)/ in some place (np.)

As extended usages of "r.以为 r.是谁", these constructions share similar grammatical functions with it. Comparing with "r.以为 r.是谁", the variant "r.以为 r.是+np." directly states the speakers' presuppositions of the listeners' self-cognitions. For example, in [69a] we gave an example "你以为你是谁? ! 你不是上帝...(Who do you think you are?! You are not the god...)". This expression indirectly gives the speaker's presupposition (the listener considers "I'm the god") in another sentence in the context of "你以为你是谁". By using "r.以为 r.是 + np.", the speaker integrate this presupposition into the construction and express them as a whole (For example, "你以为你是上帝? (Do you think you are the god?)"). The pragmatic functions of this construction are likewise comparable to those of its prototype: the speaker believes that the listener's behavior is incorrect, and that this behavior indicates a major departure in the listener's self-cognition. The speaker attempts to convince the listener

to compare his/her behavior to that of the "np." and implies that both the listener's self-cognition and behavior are completely incorrect. The complete rhetorical question pattern of this construction should be "难道 r.以为 r.是+ np.". The adverb "难道" is an assistant word which can strengthen the rhetorical tone.

"r.以为 r.在+vp./np." are more diversified variants. They enable the incorporation of additional "presuppositions" into this construction. Verb phrases (often predicate-object structures) must be used in place of basic verbs in this construction. In this construction, the "np." should be noun phrases referring to locations. Similar to the "np." in "r.以为 r.是 + np." and the "谁(who)" in "r.以为 r.是谁", these "np./vp." are also the places which the listeners are not in or things which the listeners can hardly do.

Another variant of this construction is "r. + 真/还真 + 以为 + r./自己 + 是/在 + np./vp.". The adverb "真(really)" confirms the fact that the listener indeed consider he/she is someone who he/she is not (or he/she is in the place he/she is not in). In *现代汉语词典*(Institute of Linguistics, CASS (Eds.), 2016, p.506), the adverb "还" have a sense which means "unreasonable; unusual; do not expect something but the fact is that". The function of it is close to "even". Therefore, adding adverb "真/还真(really)" before "以为(think)",the speakers intend to heighten the absurdity of the presupposed circumstance and accentuate the ironic tone. Occasionally, people will substitute the reflexive pronoun "自己(oneself)" for the second/third person pronoun in this construction. This replacement is compatible with all of the constructions in this series. Additionally, all of the constructions in this series can be written with the word "当" in place of "以为," as the two terms have extremely similar purposes and meanings in this construction.

As with the "r.以为 r.是谁" construction, the variables "r." can be any second/third person pronoun. Furthermore, if the second variable is not the reflexive pronoun "自己(oneself)," both variables in this construction must be the same

pronoun.

5.1.9 谁 让/叫 + np. + X

who let np. X

This construction has a variety of possible interpretations, although not all of them are ironic. The word "让(let)" can be replaced by "叫(call)" in this construction. This construction's fundamental meaning is inquiry. The speakers wish to inquire about "who" should allow "np." to do/be something. This usage necessitates a definite response to the question "who," and hence cannot be ironic. Additionally, this construction has at least three usages that can be interpreted as rhetorical questions.

1) The first is negation. When this usage is used, it is typically to signify "no one" allowing "np." to do/be something. The interrogative pronoun "谁(who)" has a predetermined response of "no one," which stems from the speaker's presumption. This "response" does not have to be included in the context; however, the listener can deduce it from this rhetorical sentence form. This is the most fundamental purpose of a rhetorical question.

2) The second is to provide justifications. When this construction is used in this manner, the context usually indicates an occurrence or a result that the speaker does not want to occur or an event/result that appears illogical. The "X" in this construction must refer to a previously occurring event or consequence. The construction is outcome-driven rather than process-driven. This construction's purpose is to explain why this event or result occurs. Individuals can even construct a cause and effect compound sentence by restructuring the sentence structure. For instance,

[74] 他，活着就是为了仇恨。谁让他是白天羽的儿子？

He lives for hatred. Who let he is the son of Bai Tianyu?

The reason "he" is required to "live for hatred" in Example [74] is because "he is the son of Bai Tianyu." This construction is used to explain why a speaker does not want a particular outcome to occur (someone lives for hatred). The "X" in this sentence denotes an unchangeable fact. Individuals can convey a variety of pragmatic purposes by activating this meaning, including blame, helplessness, responsibility, regret, and pity. Ironically, the first two motives are more plausible.

3) The third instance is in the context of blame. Although some of the expressions in the second usage can also be used to communicate blame, this usage can be used to express this emotion without necessarily being a "cause" of certain outcomes. The speaker does not believe that there is a person who can/may allow "np." to do/be anything, but that "np." will do/be something spontaneously. The speaker is dissatisfied with the fact that "'np.' do/be something," which results in the emergence of the blame intention. For instance,

[75] 谁让你欠我房租不还? 谁让你一去就没了消息?

Who let you own me rent? Who let you go and do not have any news after that?

In this instance, the speaker is not concerned with the outcome of the listener's behaviour. The speaker's primary objective is to convey his or her negative opposition to those actions. The speaker is implying that regardless of the outcome, "np." must bear the repercussions on his/her own. This usage is almost certainly ironic..

The pronoun "谁(who)" also does not relate to a real person in the second and third usages. It is primarily used to express the speakers' subjective attitudes. The negative views expressed in these statements are directed at "np." and "X," rather than at "who." Subjectively, the speakers believe that "np. + X" will result in (or has resulted in) certain negative consequences. Thus, if the events encompassed by "np. + X" are controllable, the ironic intents point to "np" (for example, Example [75]). If the events contained in "np. + X" are uncontrollable, the ironic intentions derive from the speakers' and "np.helplessness. "s For instance, in Example [64], both the events "你

叫何江涛(your name is He Jiangtao)" and "它叫招商银行(it is China Merchants Bank)" are "uncontrollable," implying that the ironic aim stems from the bank users' impotence. The occurrence "你敢用信用卡(you dare to use credit card)" is controllable, thereby directing the ironic aim toward "你(you)". Additionally, we see cases in practice where this construction is used to convey positive by negative.

[76] 华仔我讨厌你, 谁让你帅得让我痴迷。

Andy Lau I hate you. Who let you so handsome and make me obsessed.

This is an expression which combine rhetorical reversal (谁让...(who let...)), reversal of sentiment (讨厌(hate)) and reversal from opposite pair (讨厌(hate) versus 痴迷(obsess)). The contextual meaning is the speaker is obsessed by Andy Lau since he is handsome. However, both the literal meaning of the emotion word "讨厌(hate)" and the contextual meaning of the construction "谁让 + np. + X" make this statement seems to be negative. It is a relative complex example which worth to do further researches.

The rest two constructions in this section are newly-developing constructions which are mainly used in cyber language.

5.1.10 要不要 这么 + a.

need or not so a.

Similar to other constructions which contain rhetorical reversal, this construction also has interrogative usage:

[77] 蛋糕要不要这么大? 还是做小一点?

Whether the cake need to be so big? Or need to make it smaller?

In the interrogative mode, the speaker inquires about the suitability of the cake's

size. He/she is awaiting a response. This is the customary application of this construction. However, in cyber language, this construction has begun to be used in rhetorical queries. For instance,

[78] 吃人家的喝人家的还这么敷衍...要不要这么无耻...

Eat others' food, drink others' water, and be so perfunctory to others... Whether (he) need to be so impudent...

In this usage, the construction implies that the speaker does not anticipate the construction's subject to be thus "a." (for example, so impudent). The reality, on the other hand, much exceed his/her expectations. This construction carries the connotation of being overdone. That is, the speaker determines that the degree of a feature exceeds its "right degree" or "acceptable degree." "Excessive" is typically associated with a negative attitude. Thus, the normal contextual interpretation of this construction is that the speaker believes the degree of this attribute should not be achieved (or does not need to be achieved). This is a negative evaluation. This application serves as the prototype for this construction. The construction's negative attitude is derived not just from the negative term, but also from the construction itself. However, positive adjectives are occasionally used to fill the variable "a." It is a form of pseudo-complaint that refers to the subject's praise (for example, "要不要这么温馨 (whether (something) need to be so warm and sweet)"). Both of these usages are capable of eliciting a rhetorical reversal.

5.1.11 真的有人 + X + 吗? / 不会真的有人 + X + 吧?

really be people X (modal particle)/ cannot really be people X (modal particle)

In traditional usage, "真的有人 + X + 吗? (is there someone really + X?)" is a general question which can be answered by "yes" or "no". The speakers usually do not have determinate presuppositions to the answer. Comparing with it, "不会真的有人 +

X +吧? (it cannot be any one who really + X, isn't there?)" is closer to a rhetorical question. The speakers presuppose that "there is no one who really + X" and ask the listeners for agreements. However, seeing it as a disjunctive question, we can still use "yes" or "no" to answer it. Recently, another new practical function of these two constructions emerges from cyber language. In order to activate this function, several conditions have to be met.

1) The speaker believes that something (X) is completely unacceptable or irrational and that no one should do it. Meanwhile, in order to appreciate this function, the listener must be aware of the speaker's point of view, regardless of whether he or she agrees with it.

2) Both the speaker and the listener are aware that someone is actually doing this (X). In contrast to the usual rhetorical device of "不会真的有人+X+吧(there is no one who really + X, isn't there?)", the speaker acknowledges that, while there should be no one who truly does something, there is someone who already does.

3) The speaker regards persons who commit this act as extremely silly and even incorrigible, and hence wishes to convey an intense negative evaluation and sentiment against such individuals.

When all of the requirements outlined above are met, the construction's intense ironic aim can emerge. As a result, in order to determine whether the construction is truly in this usage, we must refer to some context rather than relying solely on this single expression. These two constructions are frequently employed in conjunction with satiation reversal in practice. For instance,

[79] 不会吧? 不会吧? 不会真的有人还信他吧? 不会吧不会吧?

It can't be? It can't be? It can't be anyone who still believe him, isn't it? It can't be, it can't be?

When combined with satiation reversal, this statement is a classic case of irony that may be identified even in the absence of additional context.

5.2 Ironic constructions which use expectation reversal

Some construction which literally express the expectations of the speakers may have ironic intention. However, only one of them is included in CDMC. This is a newly-developing construction.

5.2.1 还 敢/能 再 + a. + (点儿/一点/一点儿)⁴ 么

still dare/can more a. a little bit (modal particle)

In CDMC, the rephrasing template for this construction is "已经非常 + a + 了 (it is already very + a.)". Clearly, this template is insufficient. In contemporary Chinese, the term "敢(dare)" takes on a new meaning as a result of cyber language. In this sense, "敢" is closer to "能/可以(can)", and in the majority of phrases that contain this "敢", "敢" can be replaced by "能/可以(can)". Numerous statements in cyber language that contain the word "敢" or the structure "敢不敢" reflect the speaker's expectations. For instance,

[80] 至今记得宝安机场路上巨大的广告牌“来了就是深圳人”。北京，你敢不敢如此包容，如此开放！

I still remember the huge advertising board in Baoan Airport which write "Once you come here, you are the member of Shenzhen". Beijing, you dare or not to be so tolerant and open!

This is an imperative sentence expressing the speaker's hope that Beijing will be as accommodating as Shenzhen. By using "敢不敢" instead of "能不能", the speaker emphasizes his or her strong desire and sentiment. Additionally, others believe that this expression implies that Beijing cannot possibly be so tolerant and open. As a

⁴ The bracket in the basic form of the construction means the elements in the bracket can be omitted (similarly hereinafter).

result, this phrase should incorporate a rhetorical reversal. Regardless of whether ironic or not, the speaker expresses his/her expectation directly in this construction.

Comparing with "敢不敢 + X", "还敢再+a.+点儿么" expresses the speaker's expectation in a reversed way. For example,

[81] 天, 你还敢再冷点么? 我又不是企鹅, 更不是北极熊, 为啥要这么冷呢?

Weather, you dare or not to be colder? I'm not penguin, let alone polar bear. Why you be so cold?

The literal meaning of "你还敢再冷点么" is an expectation which hope the weather can be colder. Additionally, we can translate it as "could you be colder?" However, the following statements indicate that the speaker does not wish for the weather to be so chilly. As a result, there is a reversal between the speaker's literal and true expectations.

When the adjective is positive, this construction is mostly used to express the greatest degree. For instance, the phrase "还敢再美点儿么(dare or not to be more beautiful)" does not imply that the speaker wishes for someone or something to "be more beautiful." Its contextual meaning is "it cannot be more lovely," implying that the definition of "beautiful" has reached its zenith. The literal and contextual meanings of the construction are incongruous in this usage but do not undergo reversal. However, when the adjective is negative, because most people do not expect something to be worse, it should not reflect the speaker's true expectation. Perhaps we can continue to see it as a maximum degree. While expressions that use positive adjectives to fill the variable reflect the speakers' desire that the status will continue, expressions that use positive adjectives to fill the variable imply the speakers' expectations that the state will stop or, at the very least, will not deteriorate. As a reversal, the literal and contextual meanings of this usage are reversed.

The rest of the constructions in this section do not be included in CDMC. They come from our observation of large-scale corpora. The first three of them are newly-developing constructions which are mainly used in cyber language.

5.2.2 敢不敢/能不能 再 + a. + (点儿/一点/一点儿)

dare/can or not more a. a little bit

In CDMC, there is a construction "敢不敢 + vp. (dare or not + vp.)". The rephrasing template of this construction is "请 + vp. (please + vp.)" and "希望 + vp. (hope + vp.)". This is one of the basic construction meaning of the constructions which contain the interrogative structure "敢不敢(dare or not)". We've mentioned this usage in 5.2.1. Most of the researchers (Luo, 2014. Guo, 2017 and Sun, 2020) consider that the construction "敢不敢+ X" have three meanings: 1) positive-negative question: it is the most basic meaning of this construction. It asks about whether someone have the courage to do something; 2) imperative and expectation: it is the dominant construction meaning of the construction. As what we mentioned, it expresses the command or aspiration of the speaker; 3) evaluations which are often used in exclamatory sentences: it express the evaluation that the speaker consider the degree of one feature has achieved the maximum level. Ironic expressions are predominantly seen in the third usage. In contrast to the first two usages, the subject of this usage (which does not have to be explicitly stated before the construction; it can be inferred from the context) can be either people capable of responding or changing or abiotic objects or even abstract concepts that cannot spontaneously respond.

This construction and the one in 5.2.1 can be considered variants of one another. There are reversals between the speakers' literal and true expectations. Whether or not they are ironic is mostly determined by the adjective they use. "敢不敢" may also be substituted for "能不能" or "可不可以" in this construction.

5.2.3 np. +尽管 + X

np. feel free to X

The literal meaning of the adverb "尽管" is "do something in a relieved state without considering about other things" (现代汉语词典, 2016, p.678). It includes an expectation that the speaker hope the listener to do "X". For example,

[82] 你尽管出国, 妈会照顾自己, 不用靠别人。

You just feel free to go abroad. Mom can take care of myself without rely on other people.

The expression "你尽管出国(you just feel free to go abroad)"implies that the speaker wishes for the listener to do so. To further encourage the listener to "move abroad," the speaker additionally informs the listener that she need not worry about her (the speaker's) living conditions because she is self-sufficient. However, depending on the context, we can infer that the contents of the "X" are not the speakers' true expectations. For instance:

[83] 我呸。你就安慰自己吧。你尽管为平庸找出一百个借口吧。你继续蜗居在自己的狭窄世界里吧。

Pooh. You just keep on comforting yourself like this. You just feel free to find one hundred excuses for mediocrity. You just keep on living in your narrow world.

Except the first sentence ("Pooh"), every sentence in this example is imperative. However, none of these represent the speaker's true expectation. The speaker intends to convey a negative attitude toward the listener's actions through the use of these imperative statements. Additionally, this sentence contains an element of dare. By requesting that the listener continue to perform negative things, the speaker hopes that the listener will recognize that his or her (the listener's) behaviors are incorrect and

will cease to do so.

Occasionally, this expression can be interpreted as a threat. For instance,

[84] 你尽管打! 动手啊!

You just feel free to hit! Do it!

The statement's true meaning does not imply that the listener should strike the speaker. By employing imperative sentences, the speaker hopes to bolster the expression's impact and intimidate the listener into inaction. An extended construction is "你尽管 + X, Y + 算我输 (you can feel free to X. I'll admit I lose if Y)". The construction meaning of it is "no matter how you X, Y will not happen". In this construction, "Y" should be the aim of "'你(you)' to do 'X'". This construction presupposes that the speaker believes the listener's objective cannot be accomplished under any circumstances, requiring the entire sentence to be negative. Meanwhile, because this construction implies that what "you" do is ineffective, the speaker is simultaneously attempting to persuade the listener not to do "X." As an expectation, there is also a reversal of the speaker's literal and contextual expectations.

5.2.4 (你) 来 + v. + 我 啊

you come v. me (modal particle)

The most typical expression of this construction is "你来咬我啊(you come to bite me)". We've analyzed this expression in Section 3.2.2. It is often employed in cyber language, and its true purpose is provocative rather than imperative. There are a limited number of verbs that can be used to fill the variable "v." In the corpora we used, we just find "咬(bite)", "打(hit)", "抓(catch)" and "撞(crash)" are used in this construction. For example,

[85] 昨天撞人那货还不承认, 说是那女生讹他, 发短信威胁那女生说“有

种你来撞我啊”。

The people who crashed others did not admit his behavior. He said the girl was extorting him and he sent a message to threaten the girl which said "Come to crash me if you dare".

The individual who sent the message had no intention of having the girl smash his car. This communication includes his presumption that the female will not crash him and will be powerless to harm him. The context indicates that this statement is intended to "threaten the girl." However, because its usage has evolved into a construction, it is also understandable without additional context, as when the verb is "咬(bite)", "打(hit)" or "撞(crash)", the imperative will break common sense, leading listeners / readers to automatically conclude that it is not a genuine expectation. In comparison, if we substitute alternative verbs such as "接(pick up)", "找(find)" or "救(save)", people tend to regard the term as non-ironic.

"咬(bite)" is the most often used verb in this construction. In cyber language, the term "来咬我啊(come to bite me)" has evolved into a solid, variable-free construction. People frequently use "咬(bite)" in this construction since this action is performed by humans on a relatively infrequent basis. By using this verb, the speaker might underline his or her presumption that the listener will not do so and heighten the ironic degree, as "biting others" is an irrational act for most people. Sometimes people add "有种(have guts)" or "有本事(have ability)" before this construction (like Example [85]). We can see these usages as the extended constructions of the prototype. The complete expression of "有种/有本事 + (你)来 + v.+我啊" is "如果(你)有种/有本事, (你)就来 v.我啊(if you have guts/ability, you come to + v. + me)". The basic functions of these extended constructions are same to the prototype but they further enhance the provocative intention.

The rest five constructions in this section are traditional constructions which

have been used to express ironic intention for a long period.

5.2.5 r. +敢!

r. dare

Typically, this construction appears as a standalone sentence. From a literal standpoint, it appears to be an exclamatory sentence encouraging someone to take action. However, in practice, people frequently interpret this statement as "someone is afraid to do something." Additionally, this term incorporates a threat, implying that "if someone dares to do something, it will result in some negative consequences." This construction reflects the speaker's subjective preconceptions and assertive attitude. The situation for this construction should be as follows: 1) the listener intends to do something or there is a possibility that the listener will do something; 2) the speaker forbids the listener from doing this thing because it may be harmful to the speaker; and 3) the speaker wishes to warn or threaten the listener, implying that if the listener disregards this threat, the speaker will impose some punishment on the listener. This construction expresses a more negative attitude than simply negation or discouragement. In this construction, the variable is typically filled with a second/third person pronoun.

5.2.6 再 + vp. + (一 + quantifier) +(试试)

again vp. one quantifier try to

Similar to the last construction, it is also a construction which means to threaten the listeners. It is an imperative sentence in form which ask the listener try to do the things he/she (the listener) has done before once more. It can be used as a real imperative sentence. For example,

[86] 再做一次试试，也许就成功了呢。

Try to do this once more. Then maybe you will succeed.

The adverb "再(again)" includes the presupposition that the listener has done this "vp." at least one time. No matter the first "try" is successful or not, the speaker hope he/she can try it again. However, when the "vp." may be harmful to the speaker, the construction will no longer means encourage or command of try "vp." again. Similar to "你敢! (You dare!)" and "来+ v. +我啊(come to + v. + me)", it also can be comprehended as "you do not dare to try 'vp.' once more". The situation of this construction is also very similar to the situation of "你敢! (You dare!)" but have some differences: 1) the listener has engaged in "vp." at least once; 2) the speaker strongly discourages the listener from engaging in this behavior again, as it frequently results in direct harm to the speaker; 3) the speaker wishes to warn or threaten the listener, implying that if the listener disregards this threat, the speaker will punish the listener. The "penalty" can be declared explicitly or demonstrated through actual acts. Additionally, it might be an abstract event that occurs in a variety of circumstances.

A similar construction is "vp. + (一 + quantifier) + 试试". For example, "你打我一下试试(you try to hit me once)". The distinction with this construction is that the "vp." does not have to be the previous action performed by the listener. Additionally, it could be an activity that the listener desires but has not taken. Additionally, we can put "(again)" before the verb to refer to the action performed by the listener. For instance, "(you attempt to strike me again/once again)". The pragmatic functions of this construction are similar to "再 + vp. + (一 + quantifier) +(试试)".

The reversal lies between the literal expectation and the real aim of the construction.

5.2.7 (np.) 有 本事 (就) + vp.

np. have ability just vp.

This is a condensed version of the hypothetical complicated sentence. It contains the idea that "if np. possesses ability, then np. 'vp.'". The "vp." in this construction is frequently in the imperative form. However, the speaker does not intend to command the listener to do anything in this instance. The imperative in "vp." refers to an action that the listener is unlikely to perform. And it frequently has some contrasts with the listener's current conduct. One of the construction meanings is "np. totally do not possess the capability to 'vp.'" or "np. absolutely do not dare to 'vp.'".

When various "vp." are used, the pragmatic functions of this construction may exhibit varying patterns. If the "vp." refers to an upcoming occurrence, the pragmatic functions tend to provoke. The speaker believes that the listener lacks the ability to do anything, and hence wishes to taunt the listener's incapacity or lack of courage. For instance,

[87] 整天打这个假打那个假，你有本事就去打那些贪官污吏的假。

Crack down on this fake that counterfeit all days. If you have ability, you just go to crack down on the fake of those corrupt officials.

If the "vp." is a structure comprised of a negation word (which is typically "别", "不要", "不" or "甬") and an event that has occurred, it is a form of sarcasm intended to injure the listener due to the speaker's negative attitude regarding the listener's actions. For instance,

[88] 有本事就不要靠偷来的东西做业绩。

If you have ability, you just do not use those stolen things to make your performance.

This construction's literal meaning is to make a proposal or issue a demand. However, because the speaker is aware (or presupposes) that the "vp." in this construction refers to an event that the listener is unable or unwilling to perform, it is not a genuine proposal. The speaker employs "有本事(have ability)" as a precondition

and then asks the listener to perform an action that the listener is incapable of performing. Because the listener is unable of doing so, the speaker intends to indicate the listener's incapacity. The "vp." does not have to be the speaker's genuine expectation.

5.2.8 np. + v. + 给我看看

np. v. let me see

This construction has a number of pragmatic roles in common with "(np.)有本事就+vp.". For instance, the speaker is aware (or presumes) that the action specified in "v." is something the listener cannot/does not want/does not dare to perform. Although this construction has the appearance of an imperative sentence, it does not accurately convey the speaker's order/command. The speaker's intention is to tease the listener, as the listener is unable to "v.". Additionally, it frequently implies a rejection of the listener's current conduct, as that behavior appears to indicate that the listener can/wants to do "v.".

However, this construction is more constrained than the previous one. To begin, the variable in this construction can only be supplied with singular verbs, the majority of which are monosyllabic. Verb phrases are rarely appropriate in this construction. For instance,

[89] a. 砸店? 你砸给我看看!

Smash the shop? You just smash and let me see!

b. ?砸店? 你砸店给我看看!

? Smash the shop? You just smash the shop and let me see!⁵

⁵ The English translation may workable but this expression is very odd in this Chinese construction.

Meanwhile, although the variable in this construction can just be the actions which have not happened. The structure "a negation word plus an action which has happened" cannot be used in this construction. For example,

[90] a. 你有本事别叫啊!

If you have ability, you just do not scream!

b. *你别叫给我看看!

** You just do not scream and let me see!*

Sometimes people may use the structure "a negation word plus a verb" in this construction. But the verb in this structure also has to be an action which has not happened.

This construction has a variant "np. + v. + 一 + quantifier + (给)(我)看看". The meanings and functions of the variant are similar to the prototype, but after adding the structure "一 + quantifier"(such as 一下, 一个), either "给(let)" or "我(me)" or even both of them can be omitted. The construction "np.+ v. +给我看看(np. just v. and let me see)" and "(np.)有本事(就) + vp.(if np. have ability, just vp.)" can also be used in one combine: "(np.)有本事(就)+ v. +给我看看(if np. have ability, just v. and let me see)". The ironic intention can be further emphasized by this combination.

5.2.9 爱/想/愿意 怎么+ vp. +(就) 怎么+ vp.

like/want/be willing to how vp. how vp.

In this construction, "就" functions as an adverb, indicating that something will occur naturally under certain conditions or circumstances (*现代汉语词典*, 2016, p.701). In its literal sense, it is a permission that allows the listener to do anything he or she pleases. It bears some resemblance to the literal meaning of "+ vp." From a semantic standpoint, this construction serves two purposes. The first is the infinite

possibilities for realizing the "vp" (Li, 2020). The second is the "vp.continuity." 's For instance, "你们想怎么玩怎么玩(you want to how to play then how to play)" can suggest that "you" can play in whatever way you want or that "you" can continue playing until you no longer want to.

The primary purpose of this construction is to convey the speaker's permission or encouragement. The speaker both requests and expects the listener to perform activities that he or she (the listener) enjoys. However, it can be used to express negative attitudes as well.

[91] 我不会解释，一句也不会！爱怎么想怎么想去吧！

I won't explain even one sentence! Thinking in any way you want!

The context of this term does not imply that it encourages the listener to "think in any way they wish." Indeed, it is a denial that expresses the speaker's dissatisfaction or even anger with the listener's actions (in this example, this behavior can be a misunderstanding or an unreasonable guess of the speaker). The speaker's true expectation is that the listener will change his or her behavior. However, by employing this construction, the speaker expresses his/her expectation inverted as well as his/her anger and helplessness, as the literal sense of the construction indicates a resigned and indifferent attitude.

5.3 Ironic constructions which use evaluation reversal

As what we mentioned in the last chapter, evaluation reversal is the second frequently-used device in verbal irony. A lot of constructions include this kind of reversal and most of them are included in CDMC.

5.3.1 亏 + np. + vp.1 + 得 + vp.2

luckily np. vp.1 (auxiliary word) vp.2

As previously stated, "亏" is a very intriguing word in Chinese. Originally, it was employed as a verb. Although it has a variety of definitions, including "lack," "damage," "loss," "lost," and "reduce," each of these definitions has a negative tendency: quantity reduction. Later on, it evolved into adverbial usages. It is not the only verb in Chinese that has an adverbial meaning. For instance, "没" can be used as a verb to signify "do not have/exist" or as an adverb to mean "no/without." "分别" can be used as a verb to mean "distinct" or as an adverb to mean "respectively." However, regardless of the meaning of these words, the majority of their verb and adverb usages follow the same pattern. However, the distinction between them and "亏" is that, while its verbal meanings are negative, its adverbial meanings are positive. The adverb "亏" means "fortuitously/fortuitously". And the most distinguishing aspect of this word is that it generates a new ironic meaning based on the adverbial meaning "fortunately/fortunately," which indicates "the behavior of the object does not accord with the expectations which is brought by the conditions" (Chinese Wordnet, Huang et al., 2010). This ironic usage also has a negative connotation, which is consistent with the word's original connotation. And because this usage is so prevalent, it is included in the majority of dictionaries.

In this construction, according to the principles of IIP, we still consider that "luckily/fortunately" is the literal meaning of the word "亏" although the ironic meaning of it has been included in dictionaries.

The rephrasing template of this construction is "np. + 不应该 + vp.1 + vp.2 (r + should not + vp.1 + vp.2)". From the rephrasing template we can find that it is also a negation to people's behavior. In this construction, the function of "vp.2" is resultative complement which refer to the result of "vp.1". The variable "vp.2" is usually filled by directional verb, especially "出/出来(come out)". "vp.1" can be either action verbs like "说(speak)" and "做(do)" or psychological verbs like "想(think)". The whole construction shows that the fact which is referred in the structure "vp.1 + 得+ vp.2" does not accord with the speaker's expectation. This disaccord has different situations.

The first is not accord with to the speaker's positive expectation. For example,

[92] 把基辅交给敌人，亏你想得出！简直是胡说八道！

Hand Kyiv to the enemy. Luckily you can come up with this idea! It is totally nonsense!

The speaker hopes the listener can provide some useful suggestions, or at the very least refrain from coming up with absurd ones. However, the facts contradict the speaker's expectation. The speaker is attempting to convey a negative evaluation of the listener's notion through this construction, while the literal meaning of "亏 (fortunately)" is positive. There is a reversal between the literal and the contextual evaluation.

The second situation is the fact does not accord with the speaker's negative expectation. For example,

[93] 日子这么难，亏你撑得住。

The life is so tough. Luckily you still can endure it.

Because "life is so difficult," the speaker anticipates that the listener will be unable to bear it. However, the expectation contradicts the speaker's expectations. This construction implies a positive evaluation on the part of the listener, which is consistent with the literal meaning of "亏(fortunately)". This is not an ironic usage. However, in large-scale corpora of linguistic materials, the majority of sentences using this construction are in the first circumstance, whereas only a handful are in the second. As a result, this construction is highly likely to be ironic..

5.3.2 亏 + np. + (还) + vp.

luckily np. vp.

In this construction, "还" is an adverb whose function it to express "unreasonable; unusual; do not expect something but the fact is that"(现代汉语词典, 2016, p.506). We also consider the literal meaning of the "亏" is "luckily/fortunately".

The "np." in this construction is mainly filled by personal pronoun but sometimes can also be filled by other nouns or noun phrases. The "vp." in this construction can be filled with two kind of verb phrase. The first kind is judgment. This kind of verb phrase are mainly in the form of "是 + np.' (is + np.)". The "np." in the structure can be a job, a post, an close relationship or other identities. And the speaker (or the public) considers that people who have these identities should have some special characteristics. The second kind is event. It is usually an event which has done by the "np." of this construction and the speaker sees it as the experience of that "np.". The most frequently-used structure is "v. + 过/了 + np.". "过" and "了" are auxiliary words in Chinese which means the event has happened. Sometime it can also be the event which the "np." is doing or want to do.

The rephrasing template of this construction in CDMC is "虽然+ np. + vp., 但是没有什么用 (although + np +vp, it is no use of it)". As with the previous one, this construction implies that the fact does not conform to the speaker's expectation. When the speaker's expectation is positive but the reality falls short of or even contradicts the expectation, the speaker will utilize this construction to convey a negative evaluation. Because negative evaluation is the inverse of the literal meaning of "亏 (fortunately)," this is an ironic use of this construction.

Regardless of whether the "vp." in this construction refers to the speaker's judgment or experience, the ironic application of this construction involves a presupposition: because "np." is something or has experience doing something, "np." should possess some specified characteristics or skills. However, because the reality contradicts the assumption, the speaker expresses a negative evaluation of both the fact and "np." For instance,

[94] a. 亏你还是教育工作者，连自己孩子想什么都不知道。

Luckily you are an educator. You even do not know what your child thinking about.

b. 我但愿没有认识过像你这种下流而没良心的人！亏你还受过大学教育。

I wish I would never know a people who is so dirty and conscienceless like you! Luckily you has received college education.

The Example [94a] assumes that educators should be adept at comprehending children's thinking, but the speaker believes that the listener lacks this skill. Example [94b] implies that individuals who have "got a college education" should be gentle and polite, yet the speaker believes the listener is the polar opposite. Both of these two statements are evaluated negatively by the word "(fortunately)".

When the "vp." is the action or desire of the "np." The circumstance is analogous to the first scenario discussed in 5.3.1. The speaker does not anticipate the "np." doing anything negative and wishes to voice his or her disapproval of this behavior and "np.".

5.3.3 还 + np. + 呢

Same as the "还" in last construction, here the adverb "还" also means "unreasonable; unusual; do not expect something but the fact is that"(现代汉语词典, 2016, p.506) or "beyond expectation"(Chinese Wordnet, Huang et al., 2010). The pragmatic function of this construction is very close to "亏+np.₁+(还)是+np.₂". The "np." in this construction performs the same function as the "np.₂" in the previous construction. As previously stated, "np." can refer to a job, a position, a close relationship, or other identities in this construction. The speakers or the public should have a positive evaluation of the "np." and expect "np." to possess certain positive

characteristics or to act in a beneficial manner toward others. However, because the reality do not conform to those expectations, the speakers pass judgment on those who possess those identities but lack the accompanying abilities. We regard this construction as an indirect opposite evaluation, as the identities "np." deserve a positive evaluation in common sense or in the speakers' presupposition. Occasionally, both the "np." and the target of this evaluation do not have to be human. For instance,

[95] 服务态度差, 上东西时间久。东西质量差……我算是绝望了。还总店呢。

Bad service attitude, long time to wait for food, bad quality of products... I'm indeed despair of it. Even headquarters!

"Headquarters" is not an identity of human. Indeed, even if the object of this evaluation is not stated explicitly, we can deduce from the context that it should be a restaurant. The speaker anticipates that the "headquarters" will deliver superior service and products, but the reality contradict this expectation. It is another type of unqualified so that the speaker may also use this construction to express his or her negative evaluation.

5.3.4 np. + (可) 倒 好

np. instead good

"可" served as an adverb here which is used to "express emphasis"(现代汉语词典, 2016, p.737). Therefore, in this construction, it can be omitted since the absence of it mainly affects the intensity of the tone and have relatively less influences on other semantic or pragmatic functions of this construction. Basing on Lv(1982) and Guo(1999), Li (2005) considered that the adverb "倒" has three main functions: 1) expresses the fact is opposite to the expectation; 2) expresses adversative relation; 3) aims to soften tone. In this construction, "倒" should be in the first usage. Combine

with the adjective "好(good)", this construction literally express the meaning that, "np." is opposite to the speaker's expectation(or common expectation), but the speaker have positive evaluation on it ("np." is "好(good)"). Sometimes people use "可好" to replace "倒好", but the overall meanings and functions are similar.

However, this construction's true meaning is negative. Because the speaker's expectation is typically positive, and the action of "np." contradicts this expectation, the speaker intends to express a negative evaluation on it. The reversal occurs as a result of the contrast between the positive adjectival phrase "(good)" and the negative evaluation. For instance,,

[96] 客人全来了, 她们娘儿俩可倒好, 一个都不露面。

All the guests have arrived. These two women are good instead. Neither of them appears.

The speaker anticipates that the performers will come now that "all the guests have arrived," but neither of them does. The speaker's expectations are violated, and as an expectation, he or she expresses negative evaluation about "these two women" and their behavior.

Occasionally, the speaker's expectation is negative; Hu(2016) cited the following example from *Shanxi Daily*:

[97] 别的导游是越讲跟的人越少, 你倒好, 讲得大家都不舍得离开你。

For other tour guides, the more they speak, the less people follow them. You are good instead. You make everyone are not willing to leave you.

Hu considered that it is also a ironic strategy since the widely accepted construction meaning of this construction is negative but the speaker uses it to express positive evaluation. We also admit this point of view.

Hu (2016) also pointed that the location of "倒好(good instead)" in the sentence

is fixed. It can just appear behind the topic element. It means that the "np." in this construction has to be the topic of the sentence. Besides that, the structure "np. + 倒好" is not self-sufficient. It means that it cannot be used independently. People have to add complementary elements to make further explanation to the evaluation "np. + 倒好". For example, the expression "一个都不露面(neither of them appears)" in [96] and "讲得大家都不舍得离开你(you make everyone are not willing to leave you)" in [97] are these declarative elements. Additionally, in the majority of cases, there will be an introductory section before the structure. This opening part must be in direct opposition to the structure's subsequent elements. In Example [97], these two items clearly contradict one another, but in Example [96], these two elements indirectly contradict one another. However, when the introductory element's content is world knowledge or common sense, it is not uncommon for people to omit them. All of these traits corroborate our observations, and hence we accept Hu's (2016) description of this construction.

5.3.5 好 + r. + 个 + np.

good r. (quantifier) np.

Both Dong and Zhou (2011) and Li (2011) concluded that the word "好" in this construction is not an adjective. They contended that "好" is a function word that worked as a denotation of subjective vast number in this instance. Additionally, the CDMC cannot provide a specific rephrasing template for this construction, only a recommendation that this construction can be understood as a designated word of subjective attitude. However, because this construction can be employed to indicate positive evaluations because the word "好" (adjective or adverb) has a generally positive evaluation. We believe that this construction has a positive literal evaluation.

Additionally, this construction requires a counter-expectation event as a

precondition. The speaker has preconceived notions about the listener's behavior or capability. However, the listener's actual conduct or aptitude contradicts the premise. When the presumption is positive, the listener frequently wishes to express both a pleasant sentiment and a positive evaluation. When the presumption is favorable, the listener is frequently compelled to express reproachful or angry sentiments and negative evaluations. The second instance is an ironic occurrence.

The "np." in this construction can be the nouns/noun phrases which refers to people, such as name, nickname and other phrases which can embody the feature of someone (for example, "捣蛋鬼(troublemaker)", "小丫头(little girl)"). However, when individuals wish to convey more extreme negative emotions, they frequently employ more harmful and unpleasant terms to fill "np.", such as curses and the structure "姓+X+的(the people whose family name is X)". Typically, this construction is followed by a set of supporting items that provide further context for the evaluation. However, it can also be utilized independently, but the "cause" for this evaluation can still be found from the context.

5.3.6 有 + np. + 好 + v. + 的

be np. (adverb which means high degree) v. (modal particle)

This construction is used when the speaker requires/suggests that the "np." do something in accordance with the speaker's will, but the "np." refuses to accept it or expresses an outright refusal. By employing this construction, the speaker wishes to convey to the "np." that failing to comply with the mandate or advice would result in negative consequences. This construction serves as a warning or threat..

Shen (1994) considered that the adverb "好" has asymmetric usage. For example, both "好(highly)不(not)容易(easy)" and "好(highly)容易(easy)" means "very difficult(not easy)" but both "好(highly)不(not)伤心(sad)" and "好(highly)伤心(sad)"

means "very sad". Since most of the "好/好不+ a." means "very + a.", Shen claimed that the usage of "好" in the expression "好/好不 伤心" is an ironic usage. Here in this construction, the adverb "好" is also in this ironic usage. For example, "有(be)你(you)好受(feel good)的" is equal to "有(be)你(you)不好受(feel bad)的". It is also a kind of asymmetric usage which is similar to the situation mentioned by Shen(1994).

The next two constructions are included in CDMC but are not included in our first round search since they are not marked as expressing "negative meaning/evaluation", containing "negative element" or using "rhetoric" devices. However, they are often used to express ironic meanings so we should not ignore them.

5.3.7 真 有 你的

really have yours

The rephrasing template of this construction in CDMC is "你真厉害(you are really awesome)". This is a very "typical" construction which has high idiomaticity since 1) it is highly solidified and each element in this construction can hardly be replaced by other words. For example, we cannot use "没有(do not have)" to replace "有(have)" to built the negative form of this construction. And although sometimes people may use other personal pronouns such as "他的/她的(his/her)" to replace "你(your)", these expressions are mainly individual usages which are far from frequently-used; 2) this construction can be used independently, however, the grammatical structure of it is not only incomplete but also disordered. People have to comprehend it as a whole otherwise it is ungrammatical.

According to Zhang (2017), individuals frequently employ this construction when they are unable to find an appropriate adjective to fill the variable in the structure "你真是+ a. (you are really)". By omitting the adjective, this construction

enables the listener to realize the true evaluation by himself/herself. Zhang argued that this construction violates Grice's (1975) Cooperative Principle, as the Maxim of Manner requires people to avoid obscure and ambiguous language. Zhang believes that by violating these principles, the speaker is attempting to be courteous. When a speaker wishes to convey a negative evaluation, adopting a construction devoid of adjectives might soften the speaker's tone and convey the evaluation indirectly.

Additionally, this construction requires that the listener's actions do not match the speaker's expectations. According to Fu (2019), "真有你的" is a subjectively high-quantity evaluation. The term "subjective quantity" refers to the subjective evaluation of an object's quantity, whereas "subjective high quantity" indicates that the speaker believes that certain characteristics of the listener (such as ability, quality, or knowledge reserve) are of a greater quantity or degree than average. This "average" quantity is hidden within the cognitive system of individuals. Individuals will extract them when they require knowledge of an object's or event's quantity characteristic. However, the judgements indicated by this construction are polarized in different contexts. That is, whether the value is positive or negative. When the listener's action or skill exceeds the speaker's positive expectation, this construction uses an exclamatory tone to express strongly positive praise. While the listener's behavior or skill falls short of the speaker's positive expectation or is worse than the speaker's negative expectation, this construction is intended to reprimand. The second circumstance is a reversal of the first situation, as the first situation serves as the blueprint for this construction.

This construction can stand alone as a sentence. However, it is more frequently used as a clause in complex phrases. For instance, it may occur concurrently with the reason for the speaker's evaluation (Example [98a]). Occasionally, it occurs concurrently with the speaker's subsequent thoughts. That is, because "真有你的(you are very wonderful)," I (the speaker) believe/hope you should do/be something (Example [98b]). Additionally, it may occur in conjunction with other more explicit

evaluation contents (Example [98c]).

[98] a. 吃了大便还非要再嚼两口，真有你的。

Eat shit then have to chew it. You are really awesome.

b. 真有你的，也教教我呗！

You are really awesome. Teach me!

c. 真有你的，低级得没话说。

You are really awesome. It is so low that I can say nothing.

These co-occur elements can be useful contextual information to help people to comprehend the real evaluation tendency of the construction.

5.3.8 这 + n. + v. + 的/得

this n. v. (modal particle)

In CDMC, the rephrasing template of this construction is "这+n.+怎么+v.+成这样(how could +n. + v. + like this)". Due to the fact that this construction is grammatically imperfect in Chinese, the CDMC simply annotated it as having the feature "omission." However, as indicated by the rephrasing template, this construction also expresses negative evaluation..

The precondition of "this structure can be seen as an idiomatic construction" is that this structure has to be used as an independent sentence or as a clause in the complex sentence. If there is an adjective, adverb or other descriptive elements which follows the word "的/得" without any punctuation, "的/得" will no longer a modal particle but an auxiliary word and the structure is grammatical. For example, "这事(n.)办(v.)的/得好(this affair is done well)" is a grammatically complete expression. When serves as a clause in complex sentence, if the clause after it is descriptive, this

construction may also does not express negative evaluation. For example,

[99] a. 这文案写的, 够贴切!

This copywriting writes, suitable enough!

b. 这篇文章写的, 是十年前的事了吧。

This article writes, is the thing before ten years.

When the clause after this construction does not explicit evaluations or detailed descriptions of "n.", it is usually negative. For example,

[100] 这话说的, 难道人家格里芬就没断球能力了?

This word says, does it means that Griffin do not have the ability to interception?

When the construction is used independently or at the end of a complex sentence, we can sure that it is used to express the negative evaluation of the speaker. Lv(1980) mentioned that "得" has an usage which is "v./a. + 得" such as "看把你美得(look how you satisfied)" and "瞧你说的(look what you said)". The omission of the description after "得" shows that the speaker cannot or does not want to find a word to describe the verb or the adjective. It is close to what Zhang (2017) considered about the construction "真有你的". According to Zhang's hypothesis, speakers aim to be polite while expressing negative evaluation in this construction, even if it means breaching the Maxims of Quantity and Manner (Grice, 1975). As a result, they avoid the direct negative comment and instead focus on the evaluation's subject..

The rest three constructions in this section are not included in CDMC. The first two are traditional constructions while the last one is newly-developed.

5.3.9 这下 好 了 / 这下 可 好

this time good (auxiliary word)/ this time (adverb, express emphasis) good

The literal meaning of this construction is "now it is good". It is obviously a positive evaluation. Clearly, this is a positive evaluation. It can convey positive evaluation in the context of something that was negative before (for example, inconvenient, broken, or lost), but has turned to positive due to an event or a change. For instance,,

[101] 中山路偶遇几个好朋友, 好久没有见到她们了。这下好了, 可以叙旧。

I run into some good friends in Zhongshan Road. I haven't met them for a long time. Now it is good. We can talk about our old days.

This construction contains the logic relation that "it was bad in the past" (for example, in [101], I haven't seen them in a long time), but "it is good today" because "we can talk about our old days." However, our observations indicate that this construction is frequently utilized in the polar opposite manner. For instance, as mentioned in Example [25],

[25] 这下好了, 一大票子人失业了!

Now it is good! A lot of people lose their jobs!

According to the construction's original logic relationship, this suggests that "in the past it was bad," but "today it is wonderful" because "a lot of people lose their employment." Although the context does not reference the condition in the past, we can assume that it contains the fact that "those folks have jobs." As a result, this logical relationship is impossible to establish. Only when we comprehend the construction "这下好了" in a reversed way, the logic relation can be smooth again. That is, "in the past it was good", but "now it is bad" because "a lot of people lose their jobs".

This construction can also be utilized in situations when the speaker requested/suggested something, but the requested/suggested action was not followed, resulting in undesirable outcomes. For instance,

[102] 叫你别管我，你偏不听，这下好了，淋成这个样子，当心生病！

I've asked you to leave me alone but you do not listen. Now it is good. You are drenched. Beware of sick!

In contrast to [25], the speaker's perspective on the prior situation: the listener did not listen to him/her is not positive. However, as in Example [25], the current state is negative. The speaker believes that the current negative circumstance exists as a result of the listener's refusal to listen to his/her recommendation. As a result, this construction conveys both a reproachful sentiment and a negative evaluation of the listener's actions. As a result, we can deduce that the ironic construction "这下好了" is unlikely to function as an independent sentence. It is frequently found at the start or midst of a lengthy sentence, followed by a negative present circumstance. This construction is an evaluation of the current circumstance, employing positive literal meanings to convey negative contextual implications.

5.3.10 道貌岸然

This word is an typical ironic idiom in Chinese. Literally speaking, "道貌" means a decent and serious appearance while "岸然" means a prideful state. Originally used in *聊斋志异* (Liao Zhai Zhi Yi, by Pu Songling in Qing Dynasty), this word aims to describe the solemn state of a people. This positive connotation is still utilized in contemporary Chinese, and hence should be taken as the literal meaning of this idiom. However, in contemporary Chinese, it also refers to a persons who appear to be respectable and serious but are not. This ironic usage is so prevalent in modern Chinese that, while it retains its original positive connotation, it also appears to have an ironic aim. It is a characteristic idiom in which negative evaluation is expressed using literal and originally positive evaluative phrases.

5.3.11 看起来/感觉 好 厉害 的 样子

seem/feel very awesome (auxiliary word) situation

In traditional usage, this is a common expression which means something "seems very awesome". In cyber language, originally it is used in the expression "虽然不知道+np.+在说什么, 但 感觉/看起来 好厉害的样子". The prototype of this expression comes from a Chinese movie *食神*(The God of Cookery, directed and acted by Stephen Chow, 1996). The literal meaning of it is an admiration which means although "I do not understand what you are talking about" (since the content of the talk is too professional or need to rely on too much background knowledge), "I" believe the content of your talk is "awesome." However, because the expression originated in a comedy film, it automatically carries an ironic connotation. The original situation in which this term occurs is when the hero gets ashamed and explains his grand scheme to become a millionaire to his pals. His buddies completely misunderstood what he said because the plan is far too complicated and beyond their comprehension, yet one of them used this remark to support the hero. This expression is a situational irony in that scene, as the hero's scheme appears unlikely to succeed and even a little silly. When it comes to internet language, individuals maintain this ironic tone and frequently use this expression to complain that the subject being discussed by the listeners is too opaque, too difficult to comprehend, or the expression of the discourse is so muddled that no one understands it. This statement is occasionally used to imply that the speaker is uninterested in the listener's conversation.

Since the prototype of this expression is too long, in practical uses, people create two "abbreviations". The first is "感觉/看起来 好厉害的样子(seems very awesome)" while the second is "不明(do not understand)觉厉(feel awesome)". The second one is a new-born "cyber idiom" and both of them are using positive evaluation words to express negative evaluations. These usages show the vitality of

our language.

5.4 Ironic constructions which use reversal of factuality

Only three constructions of this kind are found from traditional usages but this kind of ironic constructions are diverse in cyber language. Two of the traditional constructions are included in CDMC.

5.4.1 不是 我 + vp. +np.

not me v. np.

In CDMC, the rephrasing template of this construction is "我不是刻意要 + v. +np. (I am not deliberately to + v. + np.)". This statement is a paradox since when people say this, actually they already have done that "v." or will do that "v.". The most frequently-used expression is "不是我说你(it is not me to blame you)". Researchers (Le, 2011; Li, 2013; Tang and Zhang, 2016) consider that when this construction means " I am not deliberately to + v. + you " or "I have to + v.+ you", this is a discourse marker since it cannot make influence to the truth value of the proposition and also does not be restricted by the syntactic structure. Yet, it can connect the elements of the discourse and has pragmatic functions. For example,

[103] 敬先! 不是我说你。你也做了多年的官了, 怎么连这点脑筋都转不过来。

Jingxian! It is not me to blame you. You've been an officer for several years, why you cannot understand such a small principle.

In Example [103], if we delete the expression "不是我说你(it is not me to blame you)", the overall semantic meaning of the statement will not be influenced. We can also move this expression before the salutation "敬先(Jingxian, name of the listener)" or after the statement "你也做了多年的官了(You've been an officer for several

years)". It shows that this expression does not be restricted by the syntactic structure. The main functions of this expression is to lead to a negative evaluation by an euphemistic method.

The construction "不是我+v.+np.(it is not me to +v.+ np.)" is an expression whose functions are not only show the negative evaluation of the speaker but also lead to a more specific statement which aims to express negative attitude. Therefore, it cannot be used independently. This construction is a paradox so that it is also violate the Cooperative Principle⁶. The aim of it is to be polite and avoid to directly offend others.

5.4.2 np.₁ + (是) + np.₂, np.₃ + 还 (是) + np.₄ + 呢

np.₁ be np.₂, np.₃ even be np.₄ (modal particle)

This construction is included in CDMC but we just find very few examples in corpora. However, the fortunate thing is, all the examples we find which include this construction are considered as ironic. For example,

[104] 你是市长，我还是省长呢！没钱不能进！

You are the mayor, I'm even the governor! You can't enter if you don't have money.

The context of this expression is an interesting story which a mayor was eager to find a toilet but just found a rechargeable one. He did not have money in the pocket so that he asked the collector whether the collector can let him enter the toilet first since he is the mayor. And the collector refused him by this words. The rephrasing template of this construction in CDMC is "np₁ + 是 + np₂ + 没什么大不了，因为 + np₃ + 还是 + np₄ + 呢 (it is not a big deal that np₁ is np₂ , since np₃ is np₄)". If we use this

⁶ The Maxim of Quality in the Cooperative Principle (Grice, 1975) claimed that "do not say what you believe to be false". Obviously the speaker who uses this construction know the truth value of it is false.

template without any context, it seems suitable. However, when we put it into discourse, problems will emerge. In Example [104], the collector apparently did not mean to express "it is not a big deal that you are the mayor, since I am the governor". The real meaning of him was that he did not believe "you are the mayor" at all and think it is very ridiculous. This construction includes a logic relation that if the proposition "np.1 is np.2" is true, then the proposition "np.3 is np.4" must be true. However, since both the speaker and the listener know that "np.3 is np.4" is false, so that "np.1 is np.2" must be false. For example in [104], the collector threw a proposition "I am the governor". Since both the collector and the mayor knew that it was impossible, the collector express the meaning that "you cannot be the mayor".

From the speaker's angle, this construction includes two counterfactual propositions: "np.1 is np.2" and "np.3 is np.4". And from the listener's angle, at least the second proposition is counterfactual. This construction violate the Maxim of Quality of Cooperative Principle but not aims to be polite but aims to be sarcastic since the speaker does not agree with what that "np.1" said or did.

5.4.3 太阳从西边出来

sun from west come out

Although this construction is not included in CDMC, it is a common ironic idiom in Chinese. It literally means "the sun rises from the west." Everyone understands that this assertion is false (at most of the time in most of the places on earth). Violation of this common sense will create an imbalance in the psyche of the listener. To reach logic, the listener must reinterpret the expression. Thus, except in extremely narrow contexts (for example, Example [48a]), people use this idiom to imply the impossibility or abnormality of something rather than to state a definite truth. For instance,

[105] 呵，还知道有个家，有个媳妇，今天怎么这么出息，是不是太阳从西边出来了。

Ho, you should know you have a family and a wife. Why you are so promising today? Does the sun rises from the west?

The speaker is not interested in learning whether or not the occurrence "sun rises from the west" occurs. In addition, unlike rhetorical questions, she does not mean that the "sun rises from the west." By employing this counterfactual construction, the speaker implies that "you are so promising" and "you know you have a family and a wife" are atypical. This example combines the counterfactual construction with sentiment reversal. "呵(ho)" is an interjection that expresses astonishment, but here it is used to assign blame. Additionally, it implies a reversal of evaluation, because while the speaker praises the listener for being "promising," the true meaning of this phrase is to imply that he was not promising in the past. The use of multiple reversal devices demonstrates that this remark is intended to be mocking.

The rest five constructions are newly-developing constructions which are mainly used in cyber language.

5.4.4 我(难道)会告诉/说 / 我不会告诉/说

I would tell/say / I would not tell/say

"难道" is an adverb which is used to strengthen the tone of rhetorical question. Literally speaking, the expression "我(难道)会告诉你们/说吗? (Would I tell you/say?)" is a rhetorical question which means "我不会告诉你们/说 (I would not tell you/say)". However, since after (or before) this construction people will tell (or has already told) others the things he/she mentioned that he/she would not tell others, it is a paradox. Similar to the construction "不是我+v.+np.(not me to + v. + np.)", it is also a discourse marker. It cannot make influence to the truth value of the proposition and

its syntactic position is relatively free. It can appear either before the main content of the statement (我难道会告诉你们+X+吗? (Would I tell you+ X?)) or after that (X, 我难道会告诉你们吗? (X, would I tell you that?)). It does not have explicit semantic function since if we delete it, the meaning of the whole expression cannot be changed. But it has pragmatic functions which can attract people's attention and emphasize the importance of "X". For example,

[106] 我专干这样的缺德事我会告诉你们么!!

I specialize in doing this kind of wicked things, would I tell you that!!

The speaker's primary objective is to emphasize the fact that "I specialize in doing these kinds of evil things." If we exclude the phrase "would I tell you that," neither the meaning of the term nor the truth value of the proposition are affected. However, pragmatically, the recurrence of this construction piques the listener's interest, as people are naturally curious about things they are not told. This is another construction of counterfactual expression that incorporates reversal. It has a variant "我不会 告诉/说 (I would not tell / say)".

5.4.5 (系统) 自动 转发

system automatic retransmission

This construction is primarily employed on social media platforms such as Weibo. It is a form of "impersonation." Certain internet services (such as an email box) include the "automatic retransmit" feature. When users enable this feature, the system will automatically retransmit certain content to others. Typically, these materials include the tag "自动转发(automatic retransmit)". This tag is assigned automatically by the system. Because Weibo lacks this feature, users purposefully mimic the system by manually tagging the content they retransmit. This means that the "retransmit" operation should be attributed to the "system" rather than "me." However, because

both the writer and the reader are aware that the social networking site lacks this feature, it is a form of humor that appears to be self-deceiving. By employing this construction, the writer conveys that he/she agrees with the content but is unwilling to say it due to external circumstances. It's also ironic because there is a reversal between the literal interpretation of the text and the speaker's true intention..

5.4.6 Untimely statement of objective fact

Different from other sections, this section includes more than one construction forms. The similarity of them is, they all state objective facts, but in the context, no matter what the facts they state, the aim of them is the same one: expressing negative attitude. The frequently-used constructions of this kind are "大清亡了(the Qing Dynasty has died)", "XXXX年了(XXXX is the number of the current year)", "没你地球还转(the earth still revolves without you)" and so on.

The precise focal points of various constructions may differ slightly. For instance, the first two constructions place the blame squarely on the listener's/reader's ignorance. The constructions imply that, despite the fact that they are objective facts universally recognized, the listener/reader is so ignorant that it appears as though he/she does not even know them. These two constructions are typically employed when the listener/reader does not know anything that the speaker/writer believed he/she should know or when the listener/reader is familiar with certain renowned occurrences that have occurred for a lengthy period of time. These two constructions can also be used to suggest that the listener/reader's habits or views are excessively archaic, rendering him/her unfit to live in contemporary society. The first is frequently used to accuse someone whose acts or attitudes are feudal.

The third one focuses on blaming the listener/reader's arrogance. Of course, the earth will continue to revolve in the absence of any human being. However, the

listener/reader's arrogant attitudes make it appear as though he/she can even rule the earth. This construction is quite conventional, thus it does not arise exclusively in cyber language.

The first two constructions have some synonyms such as "宇宙大爆炸了(the Big Bang happened)", "苏联解体了(the Soviet Union has collapsed)", "北京申奥成功了(Beijing successfully bid for Olympics)". The events which are mentioned in the expression are relatively random but they have to be the famous events which have happened for a long time. Meanwhile, the events which are stated in the expression is not important since they are not the contents which the speakers really want to express. The pragmatic functions of them are the crucial purpose of using them. These constructions also often co-occur with the imperative sentence "醒醒! (Wake up!)". Here this imperative sentence also does not mean to ask someone to "wake up". It implies that the status of the listener/reader just like he/she is asleep.

Whichever facts are provided in the constructions, we can deduce that stating an objective truth or well-known occurrence in isolation without providing context might likewise result in an ironic state. The literal and contextual meanings of these constructions are identical. Nevertheless, the ironic intention can be stated. This is another evidence that "incongruity" between literal and contextual meaning is not required for expressing irony..

5.5 Ironic constructions which use reversal of sentiment

Reversal of sentiment is not that frequent in our corpus (just 31 items contain it) and most of them are expressed by a simple sentiment word instead of other more complex constructions. We just find one construction which can be categorized to this kind and it is not included in CDMC.

5.5.1 拜 + X + 所赐

It is a construction which is in the form of traditional Chinese. The literal meaning of it is "thanks to somebody/something's grant". According to the literal meaning, it expresses a grateful sentiment which is no doubt positive. However, in modern Chinese, almost all the practical uses of this construction express negative sentiments. For example,

[107] 伟大的十七路司机！我是不是应该多谢你！拜你所赐！我又被扣工资了！

The great driver of 17th bus! Should I thank you! Thanks to your grant! My wage was deducted again!

From the context we can know that the result of the "grant" is "my wage was deducted again". It is a negative event which the speaker does not want to happen so that the contextual sentiment of "拜你所赐(thanks to your grant)" should not be grateful. This example also contains evaluation reversal by using the positive adjective "伟大(great)" to express negative evaluation. Without the negative event "wage deduction" in the context, "伟大(great)" can express positive evaluation. For example, if the driver save people from danger or let the speaker catch up an important date, the expression "great driver" is non-ironic. But even without context, people still tend to consider that "拜你所赐(thanks to your grant)" is ironic. Moreover, when the context is a positive event, this construction can still express ironic meaning.

[108] 我现在董事长的身分和财富，都是拜你所赐。

Now my identity and wealth as a chief executive needs to thanks to your grant.

In Example [29], we need to refer to the negative event "我摔得很结实(I fall down heavily)" to judge whether the sentiment word "感谢(thank)" is ironic. However, in this example, although the event which follows the construction is positive, the listener still considers the speaker means to be sarcastic: this is a statement in a conversation, the next sentence is the listener's reply "别讽刺我(do not

be sarcastic / do not mock at me)". It is because that the dominant construction meaning of "拜你所赐(thanks to your grant)" is to express the meaning "because of you" in a sarcastic way.

The second person pronoun can be replaced by many different kinds of phrases like noun phrase (e.g. *拜这部荒唐滑稽的肥皂剧所赐，作为中国最知名的电影人之一，张艺谋的圣诞礼物将是一大块儿煤渣。* (Thanks to this absurd soap opera, as one of the most famous Chinese filmmaker, Zhang Yimou's Christmas present will be a bulk of coal cinder.)) or verb phrase (e.g. *拜熬夜所赐，现在困得要死。* (Thanks to staying up late, now sleepy feeling is killing me.)).

According to researchers, the structure "thanks to" in English undergoes a grammaticalization process that obscures its meaning of acknowledgement. Initially, it meant conveying someone's gratitude to others. "verb + (someone's) + thanks to" was the whole structure. Then the verb preceding "thanks to" was dropped, and the structure's meaning eventually shifted to "benefit from." This is a reasonable alteration, as the rationale for "thanking" is typically that someone benefits from the actions of others. Finally, this pattern can be employed in both positive and negative circumstances. Its meaning was modified to "belong to." Bernstein (1975) defined this expression as "ironic" and "scornful" when used in negative settings.

This grammaticalization process does not occur in the Chinese structure "感谢+X," as it lacks the stable meaning "belongs to." However, the phrase "拜你所赐(thanks to your grant)" carries a similar connotation. Additionally, because in traditional Chinese "拜" is used to demonstrate gratitude through bowing and "赐" is also an honorific word that refers to a superior giving something to a junior, this construction includes a relationship reversal. Due to the combination of these two types of reversal, this construction is frequently utilized in modern Chinese as an irony.

5.6 Ironic constructions which use relationship reversal

Relationship reversals usually be expressed by a single honorific or intimate salutation. However, we also find a construction which includes this kind of reversal.

5.6.1 贵人多忘事

This is a Chinese idiom which has synonyms like "贵人多忘" and "贵人善忘". "贵人" means honorable people and is also a honorific word to others. The literal meaning of this idiom is "honorable people often forget things". The first use of this construction can be traced back to Five Dynasty. The novels collection *唐摭言*(Story Collection of Tang Dynasty, Wang Dingbao(eds.), Five Dynasty) has a story about a scholar named Wang Lingran aspiring to become an official. He believed he had previously communicated with a dignitary named Gao Changyu, but Gao may have forgotten about him. To solicit assistance, Wang addressed a letter to Gao in which he threatened that if Gao "贵人多忘(honorable people frequently forget things)" and refused to provide assistance, he would do the same thing to Gao once he became a dignitary. The first instance of this construction had an ironic connotation. Wang did not intend to imply that dignitaries are prone to forget past events when he used this statement. He meant to indicate that Gao was arrogant and unconcerned about old friendships. When applied to modern Chinese, this expression becomes an idiom that can be used to refer to both dignitaries and common people. This idiom is used to criticize those who are forgetful. Sometimes speakers will use this term if they believe their listeners are purposefully forgetting something or pretending to forget something. Regardless of the listeners' identity, the "贵人" in this phrase is neither an honorific nor a positive descriptor. Rather than that, it is a mockery. As a result, this construction contains a relationship reversal in which honorifics are used to communicate negative meaning.

5.7 Other ironic constructions or irony markers

Constructions which are categorized into this category are mostly solid constructions which are close to idioms. All the constructions in this section are not included in CDMC. We have analyzed the ironic constructions "五十步笑百步 (fifty steps laugh at one hundred steps)" in Section 3.2.9.1 (and also gave a pair of examples in 3.3.2.1). This construction is a traditional idiom which intends to express that someone does not have qualification to laugh at others since he/she also does not do well in that affair/area. While these types of constructions are ironic, they are difficult to categorize because their meaning is contingent on complex histories. These backgrounds can be famous stories or historical occurrences in the case of traditional constructions. For newly constructed constructions, these backgrounds are frequently comprised of internet memes.

5.7.1 A code-switching method

Code-switching is a linguistic phenomena in which many languages or dialects of the same language are used in the same interaction or discourse. The various codes used in this phenomenon can represent two (or more) completely distinct languages or dialects of a single language. Since the 1970s, scholars have been studying this linguistic phenomena. It generates numerous new usages in cyber language, one of which is frequently employed to communicate ironic intent. This usage reflects the literal meaning of one word in Chinese characters while presenting the true intention of another word in Chinese phonetic alphabets: for example, 丧(gan)心(de)病(piao)狂(liang). In the example, the word expressed by Chinese characters is "丧心病狂". The literal meaning of this word is "lose intellect" or "lunatic/amok". It is no doubt a negative word. However, the Chinese phonetic alphabets in the brackets is the pinyin of another phrase "干得漂亮 (well done)". In this expression, the tendency of the two phrases are totally opposite to each other. For this usage, the collocations of the word/phrase expressed by Chinese characters and the word/phrase expressed by

phonetic alphabets do not have grammatical or semantic restrictions. They usually just need to have same numbers of syllables and do not express the same word. For example,

交(gou)流(da): the characters is "交流(communicate)" while the phonetic alphabets is "gou da", which is the pinyin of the word "勾搭(accost)";

提(bei)前(chao)放(you)假(yu): the characters is "提前放假(early recess)" while the phonetic alphabets is "bei chao you yu", which is the pinyin of the phrase "被炒鱿鱼(get fired)".

In some expressions, those two words/phrases may even have a similar inclination toward evaluation/sentiment. As a result, the method's whole application is a pun. However, the most prevalent usage of this construction is that the word/phrase expressed in Chinese characters and the word/phrase expressed in phonetic alphabets have distinct evaluation or sentiment tendencies, and that the meanings of these two words/phrases undergo reversal. For instance,

[109] a. 哈哈哈哈哈谁发明的这玩意儿? 简直丧(gan)心(de)病(piao)狂(liang)!

Hahahaha, who invent this thing? It's really lunatic /,wel 'dʌn/!

b. 这狗贼吃夜宵还不忘给我发图, 太感(sheng)动(qi)了。

This son of bitch did not forget to send be photos when having midnight snacks. I'm really touched /'æŋɡri/.

In Example [109a], there is an evaluation reversal between the word "丧心病狂(lunatic)" and the phrase "干得漂亮(well done)". In Example [109b], the character-expressed word "感动(touched)" and the alphabet-expressed word "sheng qi (生气, angry)" experience a reversal of sentiment. Indeed, the writers have revealed their true meaning in the content through this usage. However, because the Chinese characters are a direct technique of expressing meanings, while the true intentions are stored in a form that is impenetrable at first glance, we may still view them as a

reversal device, with the result that the entire statements can be interpreted as ironies. We do not classify this procedure as "reversal from opposite pairs," because, as previously stated, the character-expressed word/phrase and the alphabet-expressed word/phrase need not be antonyms or diametrically opposed. Because their collocations are very random, we categorize them as this type.

In Section 3.2.9.2, we also introduce the irony marker "滑天下之大稽 (world-class ridiculous)", "友军(friendly forces)" and "一开口就是老阴阳师了 (when you start to talk, I know you are an old Onmyoji)". In this section we just give a brief review of these three constructions.

5.7.2 滑天下之大稽

This is a distinct usage of the adjective "滑稽(ridiculous)". The majority of separable words in Chinese are verbs. By isolating the adjective "滑稽(ridiculous)" and adding other descriptive terms to define the degree of "ridiculous," the authors intend to enhance its significance. Although the construction does not undergo a reversal, given its literal meaning of "ridiculous," it is quite likely that at least one ironic term exists in its context. When an expression in its context has the potential to be either ironic or non-ironic, this might be used to demonstrate that the expression is more likely to be ironic in this context.

5.7.3 友军

friendly forces

The second one is a new meaning of "友军(friendly forces)" which comes from cyber language. This word's new definition is "I take the same attitude as you/the majority of people." This is a fair derivative, given that friendly forces are defined as

individuals who take the same attitude on battlefields. However, in cyber language, it is frequently used in response to a statement that is incongruous with (and frequently contradicts to) their real ideas. They utilize the word "友军(friendly forces)" or constructions such as "我是友军(I am the friendly forces)" to indicate that what they said was not what they meant. Although the word or construction does not explicitly imply reversal, the words preceding it do: by presenting an opinion that is diametrically opposed to their opposite feelings, the speakers intend to convey ironic or even sarcastic views about the subject. The statements before this construction can do not use any reversal device. Just relying on this construction, individuals can establish that the sentence before the construction is ironic.

5.7.4 一 开口 就是 老 阴阳师 了

once open mouth certainly be old Onmyoji

This expression combines the idiom "阴阳怪气 (means someone dripping acid into words or voices with the intention of sarcasm)" with the name of a mobile game, then creates a new meaning for the word "阴阳师(Onmyoji)" to refer to those people who are good at sarcasm. Strictly speaking, this construction should be a pun since the literal meaning and the contextual meaning of the word "阴阳师" are just different from each other instead of experiencing a reversal. In practice, however, it can also be used as an irony. Sarcasm is not a polite rhetorical device in daily life. Evaluating someone as "a sarcastic person" or "good at sarcasm" is not a positive evaluation from the literal angle. Yet, when people use this expression in cyber language, they are usually in situations where both the speakers/writers and the people who are "good at sarcasm" have negative evaluations/sentiments toward someone or something. The speakers/writers actually agree with the "sarcastic people" so that in the contexts, this expression is usually a positive evaluation. However, no matter whether this expression is ironic or not, the more important function of it is to

mark the ironic expression in the preceding part of the conversation. When we see this expression, the statements in the last turn of the dialogue must have at least one ironic expression.

Another two constructions share similar pragmatic functions with "友军(friendly forces)".

5.7.5 队长 别开枪 是我

captain do not shoot be me

This expression comes from a famous Chinese skit 主角与配角(Leading actor and supporting actor, Chen Peisi and Zhu Shimao, 1990). In that skit, Chen was a supporting actor who was always playing the role of a renegade, while Zhu was the leading actor. In a scene, Chen went back to the campsite, but since his actions were too suspicious, Zhu thought he was an enemy and wanted to shoot him. Chen begged for mercy by saying, "队长别开枪是我(captain, don't shoot, it's me)". People borrow this expression to cyber language. When someone deliberately says something which is opposite to his/her real opinions, he/she knows that this statement is "too suspicious" so that it will draw a lot of criticism. In order to clarify what he/she said is meant to be ironic, the writer adds this construction as a tag after his/her ironic statement to let the readers know that what he/she said is not necessarily what he/she/they meant. This construction itself includes a metaphor by mapping the action "shoot" to the behavior "criticize," but it is non-ironic.

5.7.6 狗头 保命

dog head save one's life

In Section 3.2.9.2 we have mentioned that the emoticon "" is getting closer and

closer to a dominant irony marker. When people see these emoticons in the statement, they will naturally begin to doubt the real meaning of the content. Since this emoticon is a dog's head, people create the construction "狗头保命(dog head save my life)" to type that emoticon by words. The contextual meaning of this expression is similar to the above two, which is "do not criticize me since what I said is ironic." It has a synonym which is "手动狗头(manually typed dog head)".

These dominant markers are just like #irony on Twitter, but can be widely appropriate for Chinese texts in different language environments.

The above three constructions are used by the irony makers to emphasize what they said are ironic. Meanwhile, in Weibo conversations, just like the function of "一开口就是老阴阳师了(when you start to talk, I know you are an old Onmyoji)", some constructions which are used by user A can support that the expression of user B is ironic. A representative example is the expression "二营长，把我的意大利……面拿来(the commander of the second battalion, bring me my Italian… pasta)".

5.7.7 二 营长， 把 我的 意大利……面 拿来

second battalion commander, (preposition) my Italian ... pasta bring

This expression comes from a Chinese TV series 亮剑(Drawing Sword, 2005). The prototype of it is "二营长，你他娘的意大利炮呢！给我拉来！(The commander of the second battalion, where is your fucking Italian artillery! Bring it to me!)". At first, the prototype is used to taunt unbearable statements or behaviors. The writer considers that the statements (or behaviors) are so provoking that he/she even wants to shoot the people who said (or did) that. However, sometimes the writer soon finds that what the other people said (or did) is meant to be ironic, and he/she will turn to using the construction "把我的意大利……面拿来(bring me my Italian… pasta)". This construction simulates a situation which someone originally wanted to express a

negative attitude, but when he/she is expressing the attitude in halfway, he/she finds that he/she misunderstands others so that he/she immediately changes the words. The occurrence of this construction proves that the statement it pointed to is ironic. This construction has a deuterogenic construction "骗面之词(the words which aim to trick me out of pasta)". It is a homophonic word of "片面之词(one-sided word)" but has no semantic relation to its original word. It is also an irony marker which implies that the expression in the last turn of the dialogue is an irony. There are also some other constructions which share similar functions with this construction, such as "我四十米的大刀收不回来了(I cannot take my forty-meters broadsword back)" and "厚葬友军(give an elaborate funeral to our friendly forces)"..

5.8 Whether constructions can help people/machine to detect ironies in database with no pre-condition

As previously stated, the dearth of fine-grained annotated data on Chinese irony is a barrier to both theoretical and applied research. This thesis mainly introduce the Chinese irony corpus. This corpus, based on the concept of construction grammar, contains only instances of irony and makes an attempt to include as many different types of irony as feasible. To evaluate the success of the rules/constructions derived from this corpus, we additionally require a database containing items that are collected without regard for any preconditions. To solve this issue, the CIRON dataset (the Chinese irony data set; see <https://github.com/Christainx/Ciron>) was created.

This dataset contains 8.7K samples from Chinese microblogs. All items are collected unconditionally to ensure a considerably broader coverage. Each item is classified according to its level of irony (same as Chinese irony corpus, five levels). It is the first Chinese resource with such a large volume of data and fine-grained annotation dedicated to Chinese irony detection.

Five annotators have labeled each post in CIRON. Each of the annotators is a postgraduate student, and each of them is a native Chinese speaker. The annotation method is standardized through the use of the Irony Identification Procedure (IIP). To prevent the effects of the Chinese irony corpus's stereotypes, annotators involved in the CIRON task have no overlap with the Chinese irony corpus task. The following table summarizes the distribution of each ironic score in CIRON:

Ironic score	5	4	3	2	1
Number of occurrence	130	838	64	3391	4343
Frequency	1.5%	9.6%	0.7%	38.7%	49.5%

Table 7. Ironic score distributions in CIRON(no pre-condition database)

Ironic instances (class 3, 4 and 5) only appears in approximately 11.8% of all instances. 88.2%of data falls into class 1 and class 2.

We retrieve all of the constructions discussed in this chapter from CIRON and discover that twenty of them have multiple instances in the dataset. In comparison to the overall database, instances containing these constructions have a much higher probability of being ironic. The distributions of their occurrences (number of occurrences and frequency) are as follows.

Construction	5	4	3	2	1	Total	Irony
有这么.....的 吗/嘛/么	0 0%	2 66.7%	0 0%	1 33.3%	0 0%	3	2 66.7%
有 r 这么..... 的吗/嘛/么	0	4	0	2	1	7	4

	0%	57.1%	0%	28.6%	14.3%		57.1%
你以为你是谁	8 21.6%	20 54.1%	0 0%	9 24.3%	0 0%	37	28 75.7%
有什么好 + vp. +的	2 2.1%	22 22.7%	1 1.0%	42 43.3%	30 30.9%	97	25 25.8%
谁让 + np. + X	0 0%	2 66.7%	0 0%	1 33.3%	0 0%	3	2 66.7%
要不要这么 + a.	0 0%	1 14.3%	0 0%	5 71.4%	1 14.3%	7	1 14.3%
还敢再 + a. + (点儿/一点/一 点儿)么	0 0%	1 50.0%	0 0%	0 0%	1 50.0%	2	1 50.0%
敢不敢再 + a. + (点儿/一 点/一点儿)	1 7.7%	10 76.9%	0 0%	2 15.4%	0 0%	13	11 84.6%
你敢!	0 0%	0 0%	0 0%	2 66.7%	1 33.3%	3	0 0%
亏 + r. + vp.1 + 得 + vp.2	3 8.3%	19 52.8%	0 0%	10 27.8%	4 11.1%	36	22 61.1%
亏 + np. + (还) + vp.	11 29.7%	18 48.6%	0 0%	4 10.8%	4 10.8%	37	29 78.4%
还 + np. + 呢	2	2	0	5	1	10	4

	20.0%	20.0%	0%	50.0%	10.0%		40.0%
有 + np. + 好 + v. + 的	0 0%	1 50.0%	0 0%	0 0%	1 50.0%	2	1 50.0%
真有你的	3 1.2%	29 11.8%	1 0.4%	125 51.0%	87 35.5%	245	33 13.5%
这下好了 /这 下可好	2 2.9%	10 14.7%	0 0%	38 55.9%	18 26.5%	68	12 17.6%
不是 我 + v. +你	0 0%	11 23.9%	0 0%	26 56.5%	9 19.6%	46	11 23.9%
太阳从西边出来	2 4.5%	19 43.2%	1 2.3%	16 36.4%	6 13.6%	44	22 50.0%
拜 X 所赐	1 2.2%	14 30.4%	0 0%	21 45.7%	10 21.7%	46	15 32.6%
贵人多忘事	0 0%	17 34.0%	0 0%	19 38.0%	14 28.0%	50	17 34.0%
滑天下之大稽	5 12.8%	23 59.0%	0 0%	8 20.5%	3 7.7%	39	28 71.8%

Table 8. Distributions of ironic constructions in CIRON

As can be seen from the table, all ironic percentages are more than the ironic percentage of the entire CIRON database (11.1 percent), with the exception of the construction "你敢!" (which has only three instances). Among the twenty constructions depicted in this table, 17 have an ironic proportion greater than 20%, 11

have an ironic proportion greater than 50%, and four have an ironic proportion greater than 70%. For the 13 constructions with more than ten instances in CIRON, 11 have an ironic proportion greater than 20%, six have an ironic proportion greater than 50%, and four have an ironic proportion greater than 70%. It demonstrates that certain constructions can function as indicators of ironic intent and can aid humans/machines in detecting ironic occasions.

Chapter 6 Experiment

We believe that particular expressions utilizing specific linguistic strategies will cause individuals to experience reversals. And then to persuade them further to consider a certain sentence is ironic. In this chapter, we conduct an experiment to determine the amount to which certain linguistic strategies alter the ironic degree of sentences. In Section 6.1, we will describe the experiment's procedure, and in Section 6.2, we will examine the results.

6.1 Experiment procedure

6.1.1 Rephrase

To compare the ironic phrases in the sentence to their non-ironic counterparts that have similar semantic meanings, we must first rephrase the ironic expressions in the sentence. Given that different annotators are unlikely to produce the same result and that we cannot derive a "average result" from several rephrased sentences, this step is completed by the author. When ironic sentences are rephrased, the following rules should be followed:

- 1) Make as few alterations to the sentence's original meaning as feasible. The original meaning in this case is the sentence's contextual meaning. It encompasses not only the fundamental aspects of the sentence, such as subject, object, and predicate, but also the sentence's evaluation and sentimental inclination, as well as its logical sentiment.

- 2) Retain as much of the original expression's features as possible: the rephrasing assignment aims to eliminate the sentence's ironic intention. Keep the aspects that are not directly related to the expression of irony;

- 3) If the sentence structure is not directly related to the statement of ironic meaning, it should be retained;

4) To "eradicate" ironic aim is to diminish the effectiveness of those main reversal devices. Using the previous chapters' statements as examples,

4a) rephrase the sentence that contains rhetorical reversal with a declarative sentence that expresses the same semantic meaning:

[71b] 这家饭店有什么吃头? → 这家饭店没什么吃头。

What is the worth of eating in this restaurant? → There is no worth of eating in this restaurant.

4b) For the sentence which includes expectation reversal, If the contextual meaning can also be expressed in an imperative sentence, rephrase the literal "expectation" with the speaker's/reader's true expectation; if the contextual meaning is a threat or provocation, rephrase the literal "expectation" with a negation such as "np. + cannot/do not dare to + do something":

[83] ……你尽管为平庸找出一百个借口吧。…… → ……你别再为平庸找出一百个借口了。……

...You feel free to find one hundred excuses for mediocrity... → ...You stop to find one hundred excuses for mediocrity...

[24] 你来咬我啊! → 你对我没办法!

You come to bite me! → You cannot do anything to me!

4c) For the sentence which includes evaluation reversal, if it includes evaluative words, try to just rephrase that word with the real evaluation; if it does not include evaluative words or cannot just rephrase the evaluative words, rephrase the whole construction with the contextual meaning of it. The rephrased version would better include evaluative words:

[25] 这下好了, 一大票子人失业了! → 这下糟了, ……

Now it is good! A lot of people lose their jobs! → Now it is bad!...

[98a] 吃了大便还非要再嚼两口，真有你的。 → ……你真让人无话可说。

Eat shit then have to chew it. You are really awesome. (Literal translation: really have yours) → ... You really make people speechless.

4d) For the sentence which includes reversal of factuality, since the contextual meaning of the expression usually does not have direct relation with the literal elements, we can rephrase them with other expressions which can directly express its contextual meaning. For example, rephrase the construction "太阳从西边出来(the sun rises from the west)" with "这不可能(it is impossible)" or "这太反常了(it is very unusual)" (depending on the context).

4e) For the sentence which includes reversal of sentiment, sometimes we can directly replace the literal sentiment word with the contextual sentiment word. Yet, for some of the sentiment word, especially for the constructions like "拜你所赐(thanks to your grant)", we also have to introduce some other function words to help to complete the expression. For example,

[29] 感谢设计师，我摔得很结实…… → 都怪设计师……

Thanks to the designer, I fall down heavily... → It all blame the designer...

4f) For the sentence which includes relationship reversal, replace the honorific or intimate salutation with the ordinary salutations or directly delete them;

4g) For the sentence which includes satiation reversal, if the satiation is realized by repetition, omit the repetitions. If the satiation is realized by polarity expressions, delete those expressions or replace them with ordinary expression. Moreover, since satiation will cause reversal, we also need to change the tendency of the sentence (for example, assertive sentence need to be changed to negative sentence):

[39] 确实是她的原话，真的，我作证。 → 确实不是她的原话。

It is indeed her original words. It's true. I testify it. → It is indeed not her original words.

[40] *你说的太对了! 世界级真理! → 你说的不对。*

What you said is extremely correct! A world-class truth! → What you said is incorrect.

4h) For the sentence which includes idiom-like ironic constructions, replace the construction with its construction meaning. For example, rephrase the construction "五十步笑百步 (fifty steps laugh at one hundred steps)" with the expression "np. + 没有资格嘲笑别人 (np. does not qualified to laugh at others)" or "np. + 也有同样的问题 (np. has similar problem)";

4i) Since the irony markers themselves are non-ironic and they just emphasize the expression in its context is ironic, this kind of devices cannot be used independently and also cannot be rephrased/ deleted independently. For the expressions which include this device, we have to not only delete the marker, but also rephrase the devices which are collocated with them.

Some ironies hide in the interaction between the expression and the context. We cannot totally "remove" them by simply rephrasing one or two expressions. For example,

[110] *想起来古代的一句话: 防民之口, 甚于防川; 川壅而溃, 伤人必多。额……和谐社会我咋想起来这句话了呢?*

I think of an ancient saying: the hazard of preventing people from speaking is bigger than blocking rivers. When the dike burst, it will inevitably hurt a lot of people. Uh...why I think of this saying in harmony society?

This statement gets a high "average ironic score" in our corpus (4.8). However, it is difficult to describe the type of reversal device it employs. We label this item's reversal mechanism "rhetorical reversal" in the Chinese Irony Corpus because its

ironic aim is mostly expressed through the final inquiry. However, even if we rephrase this query as a declarative sentence "额……和谐社会我不该想起来这句话(Uh...I should not think of this saying in harmony society)", this statement still possesses high level of ironic intention. This is because people perceive the ironic purpose based on contextual information: the writer believes that the concept of "harmony society" prevents people from expressing their criticisms. It is background information that the writer and readers share. We cannot rephrase this data by simply rephrasing some statements. For this type of irony, we must eliminate the majority of the elements and also disrupt the sentence structure of the original remark, before attempting to express the contextual meaning of it in a literal manner;

5) In the rephrasing work, the CDMC rephrasing template can be used as a reference. However, not all of them are appropriate for all contexts that contain certain constructions. When referring to them, we should take into account the context;

6) The rephrased statements' meanings should be straightforward, explicit, and unambiguous. These statements should avoid employing rhetorical tricks and intricate constructions. That is, the annotators should make every effort to bring the literal and contextual meanings of a rephrased expression into close proximity.

6.1.2 Build dataset

In the rephrasing task, there are two kinds of items. The first kind of items just use one linguistic device to express ironic meaning. For this kind of items, we just need to directly rephrase the ironic part. For example,

[111] Original item: *史上第一个让乔丹无语的球员! 马盖蒂, 真有你的!*

The first player in the history who make Jordan speechless! Maggette, you're really awesome!

Rephrased item: 史上第一个让乔丹无语的球员! 马盖蒂, 你太糟糕了!

The first player in the history who make Jordan speechless! Maggette, you're really awful!

We collect this kind of items into our first dataset: rephrased version of single-device items.

The second kind of items use more than one linguistic devices to express ironic meaning. For this kind of items, each time we just rephrase one linguistic device and keep the rest one. Therefore, one item will be decomposed into several rephrased versions. For example,

[112] Original item: [嘻嘻], 我真是受不了一些SB 指点江山的样子, 你以为你是谁 ??? 还有节制的肯定一下, 你以为你在批奏折呢?⁷

[嘻嘻], I really cannot stand the face when some stupid sucker criticism against politics. Who do you think you are ??? Say something like "give a temperate affirmation". Do you think you are reading memorial to the throne?

This item's five components may have ironic potential. They have been highlighted in the text. The word "指点江山" is a positive statement that means "debate current politics." However, in this item, it is used negatively to characterize someone's haughty status while they are bossing others around. This word undergoes an evaluation reversal in the statement. "你以为你是谁(who do you think you are)" and "你以为你在批奏折呢? (Do you think you are reading throne memorial?)" are rhetorical queries that feature reversals of rhetorical positions. Additionally, this item makes use of additional assistance cues such as continuous punctuation and emoticons to convey ironic intent.

Six rephrased versions of this item are generated in the rephrasing task:

Rephrased version 1 (delete emoticon): 我真是受不了一些SB 指点江山的样

⁷ The "[嘻嘻]" in this item is an emoticon. In Weibo, emoticons can be typed in the form of "[]", such as "[嘻嘻]", "[微笑]" and "[怒]" (similarly hereinafter).

子，你以为你是谁？？？还有节制的肯定一下，你以为你在批奏折呢？

Rephrased version 2 (rephrase evaluation reversal): [嘻嘻]，我真是受不了一些 SB 指手画脚样子，你以为你是谁？？？还有节制的肯定一下，你以为你在批奏折呢？

Rephrased version 3 (rephrase the first rhetorical reversal): [嘻嘻]，我真是受不了一些 SB 指点江山的样子，你谁都不是！！！还有节制的肯定一下，你以为你在批奏折呢？

Rephrased version 4 (rephrase the second rhetorical reversal): [嘻嘻]，我真是受不了一些 SB 指点江山的样子，你以为你是谁？？？还有节制的肯定一下，你又不是在批奏折。

Rephrased version 5 (delete continuous punctuations): [嘻嘻]，我真是受不了一些 SB 指点江山的样子，你以为你是谁？还有节制的肯定一下，你以为你在批奏折呢？

Rephrased version 6 (rephrase/delete all the devices): 我真是受不了一些 SB 指手画脚样子，你谁都不是！还有节制的肯定一下，又不是在批奏折。

We include all six of these variants into our second dataset, which we call rephrased versions of multiple-device items. Additionally, we merge the two preceding datasets to create a third one: rephrased versions of all the items.

Each item in each dataset is composed of three components. Along with the text, it includes the original average score for the ironic level and the type of reversal mechanism used in this edition.

Then, we randomly rearrange the entries in each database and ask five annotators to assign a score of 1 to 5 to each rephrased version. As what we did in Chapter 4, one indicates that they believe this rephrased version is unlikely to be ironic, while five indicates that they believe this rephrased version is still most likely to be ironic. These annotators did not participate in the Chapter 4 annotation challenge, thus they are

unaware of the items' original expressions and may perceive them as entirely new expressions. Meanwhile, annotators only see the content of the things, and hence are unaware of the items' initial ironic levels and reversal mechanisms. As with Chapter 4, annotators should make decisions in accordance with the IIP and the "Annotator Guideline" that we provide. The annotation task continues to rely heavily on the annotators' subjective language sense.

Finally, we compute the average score for each item and compare it to the three database entries. As a result, each item in each database is composed of four components. For instance,

Content	Reversal device be rephrased/deleted	Ironic score of the original expression	Ironic score of the rephrased expression
[嘻嘻],我真是受不了了一些SB指手画脚样子,你以为你是谁???还有节制的肯定一下,你以为你在批奏折呢?	Evaluation reversal	4.6	4.2

Table 9. Sample of the items in the experiment databases

6.1.3 Calculate the average effect degree of each reversal device

According to the data in the above three database, we can calculate the effect degree of each reversal device. The formula is as follow:

- 1) There are n items use the reversal device A;
- 2) S_n is the score of the original expression of item n ;

3) S_n' is the score of the rephrased version which has rephrased (or deleted) the reversal device A of the item n;

4) The linguistic device A's effect on ironic level is

$$E_A = \sqrt{\frac{((S_1 - S'_1)^2 + (S_2 - S'_2)^2 + \dots + (S_n - S'_n)^2)}{n}}$$

This value reflect that, on average, when we use device A in an item, the ironic score of this item will fluctuate E_A .

6.2 Results analysis

6.2.1 Results from Database One: single-device items

Reversal Device	Effect on average score of ironic level
Rhetorical Reversal	1.26
Expectation Reversal	1.33
Evaluation Reversal	1.37
Reversal of Sentiment	1.50
Reversal of Factuality	2.02
Reversal from Satiation	1.83
Idiom-like Construction (Other)	1.41
Quotation Mark (Other)	1.69
Background Information	1.98
Total	1.41

Table 10. E_A value of different reversal devices in single-device items

By and large, we can see that the E_A of all the devices in the table exceeds one, and the average impact of all the items in this corpus is 1.41. Given that the annotators can only assign a score of 1 to objects and that all items with a score greater than 3 are considered ironic, 1.41 is a sufficiently big effect that can convert an ironic item to a relatively non-ironic one. It demonstrates how we can significantly diminish the ironic implication of an expression just by rephrasing it with a certain linguistic trick. Meanwhile, it demonstrates that these linguistic strategies are certainly the basis for the emergence of ironic meanings.

We can see from the table that not all reversal devices have cases in our corpus that are employed independently. While sentiment reversal can be employed separately, modal particles, which are one of the more particular ways of expressing sentiment reversals, are always seen in conjunction with other devices. Additionally, devices classified as "Other" devices, such as homophonic words, continuous punctuation, irony indicators, and emoticons, must co-occur with other devices in our corpus. Meanwhile, relationship reversal and reversal from an opposite partner are likewise absent from our experiment's first database. They will be discussed in further detail in the following section.

For the devices that have examples in this database, we can deduce from the data that the devices "Reversal of Factuality", "Background Information", and "Reversal from Satiation" are the most successful when the material uses only one linguistic technique to create irony. Their combined effect is around 2. Because five in our ranking system equals "most likely to be ironic," While objects with a score of less than three are deemed to be relatively non-ironic, an E_A of around two indicates that removing this device sufficiently transforms an ironic item into a relatively non-ironic one.

Reversal of factuality form an irony by establishing a ridiculous situation. The obvious fallacy (or truth) contained in the expression naturally causes listeners/readers

to distrust the speaker/true writer's meaning and to interpret the expression in a reversed manner. Items that exclusively employ this approach to convey ironic meanings frequently earn a reasonably high ironic level score (around 4.34 on average). Meanwhile, because the true meanings of these types of expressions have very few connections to the literal elements, as discussed in 6.1.1, the author was forced to rephrase them using expressions that share few elements with the original. Furthermore, because we are not required to analyze the structure of the original statements, the rephrased versions are more easily non-ironic.

The category "Background information" is designed for statements like Example [110]. They may make use of some overt irony devices (the item in this database do not). However, when we rephrase them, we discover that simply rephrasing the dominant devices does not suffice; we must also include background information in the rephrased version. For the item that is heavily reliant on this type of information, the extensive background information assists readers in comprehending the speakers' genuine evaluation and emotion. When listeners/readers comprehend them, they must acquire context information or shared consensuses between themselves and the speakers/writers, at which point the reversal occurs. The majority of these circumstances or consensuses are ironic in nature. Although these ambiguous and convoluted tactics require more time and effort on the part of listeners/readers to appreciate the contextual meanings, once they do, they typically develop stronger ironic tendencies. Similarly to the reversal of factuality, the author pays little attention to the original structures of the expressions, ensuring that the rephrased versions are easily non-ironic.

Reversal from satiation also performs well. Satiation is one of the three fundamental elements that can precipitate a reversal (Apter, 1984). It is the device that comes closest to the reversal theory's fundamental principle. It is unique in that expressions that employ this approach do not have to contain two (or more) meanings. Each word retains its original meaning (for example, the Example [18]: 你相信吗?

你相信吗? (Do you believe? Do you believe?)), but reversal still emerges. Individuals do not even need to refer to any context; the reversal can occur spontaneously. The nature of this device make it more ironic. However, when repeats (or polarity expressions) are removed, this psychological trigger vanishes, which will make big influences to the ironic level of the expressions.

Additionally, we calculate the E_A value for commonly used constructions. As with the previous table, constructions that employ rhetorical reversals receive relatively low marks. Perhaps this is because readers are accustomed to using rhetorical questions to communicate predetermined (typically negative) views, and thus, while they understand that a particular phrase that employs rhetorical reversal is ironic, the intensity of the ironic mood is not that specific (the original score of the items which just use rhetorical question is 3.81 on average). Meanwhile, the counterfactual construction "太阳从西边出来(the sun rises from the west)" receives the highest rating (1.91). In general, the E_A values of the majority of other constructions exceed the average score of 1.41. It demonstrates that these solid or semi-solid constructions are more effective at expressing ironic meanings than many other temporary formulations. Because people are in agreement about their implication and tend to default that they themselves carry stronger ironic tendencies.

6.2.2 Results from Database Two: multiple-devices items

Reversal Device	Effect on average score of ironic level
Rhetorical Reversal	0.74
Expectation Reversal	1.15
Evaluation Reversal	0.93

Reversal of Sentiment	1.23
Modal particle(Reversal of Sentiment)	0.59
Reversal of Factuality	0.98
Relationship Reversal	0.86
Reversal from Opposite pair	0.75
Reversal from satiation	0.95
Idiom-like Construction (Other)	0.67
Homophonic Word(Other)	0.26
Quotation Mark(Other)	0.99
Continuous Punctuations(Other)	0.28
Construction as Irony Marker (Other)	0.71
Emoticon (Other)	0.22
Background information	0.76

Table 11. E_A value of different reversal devices in multiple-device items

When compared to the results from the first database, the E_A value for each linguistic device is much lower. These findings corroborate our hypothesis that when an item contains many ironic linguistic devices, the ironic intention of the item is determined by the coefficient result of all the devices. When we rephrase (or eliminate) only one of them, as long as the remaining devices are sufficiently effective, the entire thing remains ironic. As a result, the E_A value of each device is often lower.

Certain devices that were not included in the previous database are included in this one. They can be classified into two categories: literal and non-literal devices. Modal particles, homophonic words, irony indicators, relationship reversal, and

reversal from opposite pair are all examples of literal devices, whereas continuous punctuation and emoticons are examples of non-literal devices. As we can see, both of those two non-literal devices have quite low E_A values (0.28 for continuous punctuations and 0.22 for emoticons). In comparison to other devices, they have a less pronounced effect on the ironic degree of expressions. They can almost certainly increase an expression's ironic level, but they are unlikely to convert a generally non-ironic expression to an ironic one. We anticipated that some emoticons that we identified as irony signals (such as "😊[微笑]" and "🐶[doge]") would perform better. Yet none of them had an average E_A value greater than 0.4. To ascertain the rationale, we conduct a thorough examination of the sentences that contain these emoticons. We see that ironies that employ these types of emoticons frequently incorporate additional literal devices. For instance,

[113] 多亏我没有很疼我的哥哥， 否则我活不到现在。 [doge]

Fortunately I don't have an older brother who love me so much, otherwise I can't alive until now. [doge]

This item's original ironic score is 4.4. When the emoji is removed, the ironic score decreases to 4.2. Along with emoticons, the writer of this statement makes use of evaluation reversal. However, unlike the constructions discussed in Section 5.3, the evaluation reversal in this sentence does not originate with the word "多亏 (fortunately)". This item contains the literal meaning of the word. The reversal is due to the evaluation "很疼我的哥哥(an older brother who love me so much)". Without a doubt, this is a positive evaluation from a literal standpoint. However, because this item carries the negative premise that "if I have an older brother like this, I will not live long," we can deduce that the speaker's true assessment of this "older brother" is negative. Without more context, it is impossible to determine the precise contextual meaning of the word "疼(love)" in this context, which is why the author rephrased this remark as a neutral expression:

Rephrased version of [113] (rephrase evaluation reversal): 多亏我没有这样对我的哥哥, 否则我活不到现在。 [doge]

Fortunately I don't have an older brother who treat me like this, otherwise I can't alive until now.[doge]

Without rephrasing this remark in a literal negative manner, the ironic score of this item lowers to 2.6, even with the emoticon retained. Another finding is that for the majority of items that retain the emoticons "😊[微笑]" and "😏 [doge]" but rephrase the remaining reversal devices, annotators tend to treat them as non-ironic phrases rather than ironic. This demonstrates that these emoticons remain assistant evidences that can assist readers in making decisions, rather than indicators that can undoubtedly alter the ironic tendencies of the expressions. As a result, they frequently need to be combined with other reversal devices to make an irony.

In comparison to these emoticons, literal irony signals are more powerful. Literal irony indicators have an E_A value of 0.71. This figure is not particularly high, but it has the potential to significantly alter the things. As previously stated, we cannot rephrase the irony markers independently because they are not ironic in themselves and only serve to underline the ironies inherent in their context. We must erase them as well as re-rephrase the collocate device in the context. Thus, the E_A value of this device is not the efficacy of these markers per se, but rather the average effectiveness of the different devices that interact with them. In fact, the actual influences of irony markers should higher than the E_A value of it since we also ask the annotators to give scores to the expression which have rephrased the other reversal devices but keep the irony markers. For example,

[114] 这姐果然是四千年一遇的美貌 (我是友军)

This sis really possesses the most beautiful face in past four thousand years (I'm the friendly forces)

By the irony marker "我是友军(I am the friendly forces)" we can know that the literally positive evaluation in its context is an irony. This evaluation also includes an exaggeration which can be seen as a satiation reversal in the context. When we both delete the marker and rephrase the evaluation to a relatively moderate expression (that is, rephrase this item to "这姐真的没有那么美貌(this sis is really not that beautiful)"), the ironic score of the expression drop from 4.6 to 1.8. However, if we just rephrase the evaluation but still keep the irony maker (like "这姐真的没有那么美貌 (我是友军) (this sis is really not that beautiful (I'm the friendly forces))"), annotators tend to consider it is an irony which use negative expression to express positive evaluation (the ironic score is 3.25). It is a totally misunderstanding and it shows that the occurrences of irony markers can really significantly affect the readers' judgments of the ironic tendencies of the whole items.

As a literal device, homophonic words do not show a good performance. Its E_A value is just 0.26, which is close to those two non-literal devices. According to the specific items which use this device we find the reason. Although many of the homophonic words themselves are born to express ironic intention, most of the time they combine with evaluation or sentiment reversal. That is, if we just rephrase them to the original words but do not clear up the evaluation or sentiment reversals hide in this device, the ironic meaning will still there. For example,

[115] [衰], 熊壮[吐], 丢脸丢在国土上就好了, 何必再丢到海洋里。

[衰], bear strong[吐]. *It is better for you to lose your face on your territory. It is no need to lose it into the ocean.*

From the intuitive angle, this item just use the emoticons ([衰] and [吐]) and homophonic word ("熊壮(literally "bear"+"strong)"), which is the homophonic word of "雄壮(grand)". From the context we can know that the whole item expresses a negative attitude. Therefore, here if we just rephrase the homophonic word "熊壮" with the original word "雄壮(grand)", this rephrased version still contains an intense

evaluation reversal so that the ironic score just drops from 4 to 3.7. Just when we also clear up the evaluation reversal by replace the word "雄壮(grand)" by some negative words like "可耻(shameful)", the ironic intention of this item can have a significant reduction. Therefore, this device can also hardly be used independently.

Comparing with non-literal devices and homophonic words, modal particle has a relatively higher E_A value (0.59). As a formalized modality of tone, it usually use modal particles which express positive sentiments to imply negative intentions. It has better performance since it can be seen as a kind of sentiment reversal. Sentiment reversal get a relatively high score in both of these two databases since it can often lead the listeners/readers to an emotional scene. However, as function words which can just express limited sentiment meanings, modal particles usually still need to collocate with other devices.

Comparing with the devices above, although relationship reversal and reversal from opposite pair also do not have independent uses in our corpus, actually, they can form ironies independently. Relationship reversal get the E_A value of 0.86 in this database. Although sometimes this device also collocate with some other devices whose E_A value are also effective enough so that just undertakes part of the function to express ironic intention, it can still explicitly express ironic intention without them or play an equally important role with them. For example, just the use of "贵人多忘事" in the expression can show the speaker is highly possible to be ironic. Another example is as follow,

[116] 哟……您这还来劲，还要跟我上法庭。我倒要看看您怎么告我，我还没说你骚扰呢……

Yo...your excellency even be so excited and want to go court with me. I'm really want to see how your excellency can accuse me. I have not said you harass me yet...

Besides relationship reversal, this item also uses modal particle and expectation reversal to express ironic meaning. However, deleting the modal particle in this

example do not make effect to the ironic score of the item. Only rephrasing expectation reversal "我倒要看看您怎么告我(I'm really want to see how your excellency can accuse me)" with the expression "您根本没办法告我(your excellency can do nothing to accuse me at all)" make the ironic score drops from 4 to 3.25. And just rephrasing all the "您(your excellency)" with the general salutation "你(you)" can also make the ironic score drops from 4 to 3.4. Both of these two devices play important roles in the expression of ironic meaning. Only when rephrase both of them can make this item to a non-ironic one (2.5).

Additionally, reversal from the opposite pair does not appear in the first database. However, this does not mean that it cannot establish irony on its own. Our irony corpus contains a relatively small number of items that make use of this device (just 24). As a result, it is very feasible that this device coincides with other devices in these situations. This assumption is supported by the fact that several of these examples occur in conjunction with non-literal devices that have no significant influence on the ironic level of the entire item. For instance,

[117] 郭德纲的相声，除了不好笑，其他都很好[吃瓜]

The cross talk of Guo Degang is good expect not amusing [吃瓜]

This item use both opposite pair (不好笑(not amusing) versus 很好(good)) and emoticon. However, deleting the emoticon cannot make significant effect to the ironic score of this item. Only when we break up the opposite pair by rephrasing the expression to "郭德纲的相声不好笑(The cross talk of Guo Degang is not amusing)", the ironic intention in this item can be eliminated. Reversal from opposite pair get the E_A value of 0.75, which is effective enough to influence the ironic intention of the whole item.

According to Table 9, the most effective devices are "sentiment reversal" and "expectation reversal." These are the only two devices in the second database with E_A values greater than 1. By employing intense sentiment, "reversal of sentiment" elicits

immediate emotional responses from readers. Listeners/readers frequently conclude that when speakers/writers employ these terms, they are in an emotional state. This device can cause listeners/readers to recur the statuses, which facilitates the emergence of reversals.

The same case occurs in the items which contain curses, insults and swear words. Due to the fact that these types of expressions rarely result in people experiencing reversals, we do not see them as reversal devices. However, we find that when an ironic item contains both reversal devices and curse words, when compared to products that do not contain swear words, this type of item is more likely to be assessed as having higher ironic intentions than others.

In the first database, the device "expectation reversal" is not the most successful. However, in the second database, when the E_A values of other devices decline dramatically, its E_A value remains in the approximately same level. We track the items in this category in order to determine the reason. We discover that the majority of devices utilized in conjunction with this device are "emoticons," "continuous punctuations," and "modal particle." According to the data in Table 9, these devices had a negligible effect on the ironic scores of the items. This indicates that in the majority of items that employ the mechanism "expectation reversal," this device remains the primary force behind the emergence of ironic meanings. Similar to sentiment reversal, imperative sentences, which are frequently utilized in this device, can likewise reflect the speakers'/writers' passionate emotions. As discussed in Chapter 5, this method is frequently employed to convey threats or provocations. When we rephrase expressions that make use of this mechanism, we must simultaneously delete (or weaken) these pragmatic functions. Additionally, it amplifies the consequences of rephrasing.

Although "background information" is a highly effective device in the first database, it does not perform considerably better in this database. We are attempting

to ascertain the reasons for this by tracking the items that make use of this device. According to the statistics, because the sentence structure is generally basic and background information is prominent, the author can simply merge background information with contextual meanings in the first database. For instance,,

[118] Original item: 我记得四哥说过一句话, 曾经有人说中国是一头沉睡的狮子, 就这种造法中国醒来也是一头马戏团的狮子。

I remember what my brother said: in the past someone said that "China is a sleeping lion", however, if we keep on immoderately consuming it like this, even though it wakes up, it can just be a lion in the circus.

Rephrased item: 我记得四哥说过一句话, 曾经有人说中国是一头沉睡的狮子, 就这种造法中国醒来也没有威慑力。

...even though it wakes up, it still does not have any deterrent force.

According to the world knowledge, we rephrase the phrase "马戏团的狮子(lion in the circus)" to "没有威慑力(does not have deterrent)". This rephrased version can reflect the contextual meaning of the original expression but does not have explicit ironic tendency, so that the ironic level of the new sentence decrease significantly from 4.4 to 3. However, in the second database, the situations are more complex. For example,

[119] Original item: 秦桧都再世了, 请教您是影射哪个是宋高宗呢? 借你两个胆子, 你敢指出来看看?

There even can be a new Qin Hui in the world. I want to consult that your excellency is insinuating who is the Emperor Gaozong of Song Dynasty? I borrow you a couple of gallbladder. Would you brave to point him out? ⁸

⁸ 秦桧(Qin Hui) was a famous treacherous dignitary of Song Dynasty. 宋高宗(Emperor Gaozong of Song Dynasty)was the emperor who trusted him and killed the famous general 岳飞(Yue Fei). Meanwhile, in Chinese, "胆(gallbladder)" also means courage or bravery.

This item use three devices: relationship reversal (请教(consult) and 您(your excellency)), rhetorical reversal (你敢指出来看看? (Would you brave to point him out?)) and background information. There is also a metaphor here which use "借你两个胆子(borrow you a couple of gallbladder)" to express the meaning "给你一些勇气(give you some courage)". The relationship reversal and rhetorical reversal are easily to be rephrased. However, the "background information" of this item which makes the speaker asserts the listener "does not have courage to point him out" is "freedom of expression". It is very hard for us to include this information in the rephrased version. Therefore, the rephrased version still cannot totally eliminate the ironic intention. Besides that, since this kind of ironies are much more obscure than others, speakers often tend to combine them with some more dominant and stronger devices to remind people they intend to be ironic.

Meanwhile, similar to the first corpus's data, "reversal of factuality" and "Quotation mark (Other)" continue to be highly effective. It demonstrates that these two devices are truly useful tools for assisting individuals in experiencing reversals and comprehending irony.

Apart from the data above, we discover that rephrasing (or deleting) all the devices associated with the items in the second database (for example, the Rephrased version 6 of the Example [112], see 6.1.2) results in an overall E_A value of 1.57. This value is greater than all the single device in the second database. When compared to the first database (1.41), this value is slightly higher but remains around the same. It demonstrates how multiple devices can work in concert to increase the ironic level. However, the number of devices an item utilizes and the level of irony it achieves are not linearly related. While utilizing multiple devices can provide listeners/readers with additional indications to corroborate that this item is ironic, it cannot always dramatically boost the item's ironic degree.

We also calculate the E_A value of some frequently used constructions. Most of the E_A value of those constructions are higher than the E_A value of the reversal devices they belongs to. For example, the E_A value of the construction "这下/现在好了(now it is good)" is 1.32. This construction belongs to the category "evaluation reversal". The E_A value of evaluation reversal in this database is 0.93. E_A value of the construction"敢不敢再+ a. + (点儿/一点/一点儿) (dare or not to be (a little bit) more + a.)" is 1.4. This construction belongs to the category "expectation reversal". The E_A value of expectation reversal in this database is 1.15. It further supports that constructions are effective tools to express ironic intention.

6.2.3 Results from Database Three: all the items

Reversal Device	Effect on average score of ironic level
Rhetorical Reversal	0.93
Expectation Reversal	1.23
Evaluation Reversal	0.98
Reversal of Sentiment	1.38
Modal particle(Reversal of Sentiment)	0.59
Reversal of Factuality	1.47
Relationship Reversal	0.86
Reversal from Opposite pair	0.75
Reversal from satiation	1.34
Idiom-like Construction (Other)	0.92
Homophonic Word(Other)	0.26

Quotation Mark(Other)	1.17
Continuous Punctuations(Other)	0.28
Construction as Irony Marker (Other)	0.71
Emoticon (Other)	0.22
Background information	1.48

Table 12. E_A value of different reversal devices in all the items

According to the table, the most effective devices for increasing the irony level of sentences are "background information," "reversal of factuality," "reversal of sentiment," "satiation reversal," "expectation reversal," and "quotation mark (other)." When ironies are detected, we must pay careful attention to them, particularly the constructions that employ these devices. Non-literal devices such as "emoticon" and "continuous punctuation" are merely auxiliary devices that assist other devices in enhancing the irony levels or assisting readers in confirming the ironic tendency. Additionally, Homophonic Word is ineffective at affecting the ironic levels of the items. Except for them, all other devices have an E_A value close to or greater than 1, which has a relatively large effect on the ironic degree of the items. Regardless of whether an item utilizes one or more devices, if we rephrase (or delete) all of the items' devices, the total E_A value is 1.51. Additionally, ironic constructions provide as valuable structured indicators for detecting ironies, as the majority of regularly used ironic constructions in our corpus have E_A values close to or greater than 1. They are easier to detect than others due to their solid or semi-solid shapes. Irony is a reasonable subject to study from a construction standpoint.

Chapter 7 Conclusion

This thesis explores Chinese verbal ironies using language resources extracted from a large-scale corpus. We seek to understand the nature and characteristics of verbal irony and then provide a standardized way for differentiating it from other expressions. We believe this is a worthwhile subject because irony is a linguistic phenomena that can easily result in ambiguity and comprehension errors. Ironies come in a variety of forms, and failing to recognize their true meanings might result in a complete misreading of the entire work. However, study on Chinese irony is extremely scarce. Few articles provide research on Chinese ironies based on their linguistic characteristics and modes of expression. Meanwhile, few Chinese corpora have been developed for irony study, leaving researchers without complete linguistic resources. As such, this thesis aims to provide a systematic examination of Chinese verbal ironies and to compile a corpus of diverse ironic expressions in Chinese.

7.1 Contributions

7.1.1 The nature of irony

Initially, scholars believed that irony's primary element was the "opposite" of literal and contextual meaning (Grice, 1975). The "contradictories" must exist in order to prove ironic intentions. Following that, researchers discovered a slew of ironic instances that this theory cannot account for. For instance, certain terms lack "literal meanings" in the context, which means that their contextual meanings cannot be "opposite to" them. The ironic intentions, however, remain since the contextual meanings diverge from the language settings. To account for these non-propositional ironies, Sperber and Wilson (1986) proposed the Relevance Theory, in which irony is defined as "an echoic use of language." They determined that an expression is ironic if

its "echoic use" is incongruous in some way. This idea refocuses researchers' emphasis on "incongruity" rather than "opposite."

However, our observations indicate that incongruity of echoic use is neither a sufficient nor a necessary condition for irony. To begin, many additional linguistic devices, in addition to irony, exhibit "incongruities" between their contextual meanings and their literal or language environment meanings. A common example is metaphor. It does not employ any dominant methods for revealing the mapping relations, yet the literal meanings of the terms are, in fact, different from their contextual meanings. Additionally, exaggerations do not reflect the realities of the language environments, but they do not have to be ironic. In a pun, a word or phrase is used to represent one meaning literally while implying another. Additionally, there is incongruity between its literal and contextual meanings, but it also intersects with irony. Second, irony does not necessarily require incongruity. In Example [15], we utilized the intriguing phrase "Ironically, irony will not be used in the writing of this paper." Its contextual meaning is not only consistent with its literal meaning, but also with reality (except the examples, we do not use any ironic expression in this thesis). However, as plainly stated, it is still an irony.

By adding reversal theory, we arrive at the conclusion that irony's true nature is reversal. Both reversed meaning and echoic applications are merely means to an end: reversal. Reversal theory is concerned with the subjective motivations and feelings of individuals. It asserts that everyday people encounter a variety of states as a result of psychological desires or values. The majority of these states are diametrically opposed. When a particular event occurs, it may cause people to experience a state transition from one pair member to another. This is referred to as "reversal" by the researchers. The methods by which ironies are expressed and comprehended are living examples of reversal. As a result, this assumption views irony as a psychological process as well as a linguistic device. In Section 3.2.10, we give three instances in which only "reversal" can account for them.

On the basis of this assumption, we further categorize eight types of reversals that can be utilized to convey irony. They are rhetorical reversal, expectation reversal, evaluation reversal, sentiment reversal, factuality reversal, relationship reversal, reversal from opposite pair, and satiation reversal. Additionally, certain idiom-like constructions that rely heavily on contextual information might convey ironic meanings. Certain non-ironic expressions can draw attention to ironic settings and activate the ironic tendencies of expressions that have the potential to be ironic.

7.1.2 Irony Identification Procedure (IIP)

We discover that there is no universally accepted approach for scholars to determine whether a remark is ironic or not. Typically, people make decisions only on the basis of their linguistic intuitions. Of course, we cannot conclude that this method is erroneous, as irony understanding is, after all, a task that is heavily dependent on subjective feelings. However, for linguistic study, we still require a defined procedure that enables annotators to make reasonably automated conclusions. As a result of Pragglejaz Group's (2007) Metaphor Identification Procedure, we develop the Irony Identification Procedure (IIP).

IIP's fundamental procedure is not overly complicated. It follows a procedure similar to that used by linguistic researchers to determine whether an expression is ironic: sketch the overall irony of the expression; determine the literal meaning of the components; confirm the contextual meaning of the expression; and finally, compare the literal and contextual meanings to determine whether they satisfy the requirements of irony. The novel aspect is that IIP explains in detail what constitutes literal meaning; how to construct an appropriate description of contextual meaning; and which types of distinctness can be viewed as reversals. After defining these issues, we can use IIP in a normative and acceptable manner to our research. The examples in pairs provided in Section 3.3.3 demonstrate that IIP is capable of distinguishing ironic expressions

from general expressions that contain similar components (such as constructions).

7.1.3 Ironic constructions in Chinese

The preceding two works are broadly applicable to ironies in other languages, however this work focuses exclusively on Chinese ironies. We introduce construction grammar in this thesis. Construction is the linguistic unit whose whole meaning exceeds the sum of its constituents. Constructions are distinct grammatical, semantic, and pragmatic structures. Their unique characteristics are derived from the entire structure rather than from any one component or from the simple addition of components. As a result, this theory encourages academics to consider both form and meaning characteristics.

Irony can also be expressed in this manner. Neither a single word nor a simple mix of literal meanings can adequately convey their functions and goals. Only when we perceive them holistically and take context into account can we grasp their full implications. From a broad perspective, every expression can be ironic in certain settings. However, when compared to other expressions, certain constructions are more likely to convey ironic connotations, and when individuals see certain constructions, they begin to believe that statements they previously considered to be non-ironic should be ironic. Given their predominance in formal constructions and a high possibility of being ironic, collecting and summarizing them will undoubtedly save time for both scholars and algorithms attempting to discover ironies in large-scale corpora.

Researchers have done research on some of the Chinese words or phrases which have higher possibilities to be ironic. For example, Wang (2015) considered that the word “好(good)” have high frequency and acceptability to carry ironic meaning in practical uses and saw it as a grammaticalization instance of irony. Lu (2016) saw “亏

+ pronoun +vp.” as a construction and considered it can transmit counter-expectation information. He also compared this construction with the construction “还 + XP + 呢”. Liu (2017) analyzed the pragmatic usages of the structure “好你个 X” and “好(一)个 X” and found that although both of them have the positive evaluation word “好 (good)”, in certain context, they can express negative meanings. Wu (2015) thought that the crucial function of code-switching method (as what we mentioned in Section 5.7.1) in cyber language is reverse. These are useful researches for irony studies. However, few of them did systematical research on ironic constructions.

Therefore, in this research, we collect 56 Chinese ironic constructions and categorize them by the reversal devices they use. We introduce the functions and the usages of them in this thesis and hope they can serve as effective supports in future researches of Chinese irony.

7.1.4 Chinese Irony Corpus

The most significant obstacle we encountered while conducting research on the characteristics of Chinese irony was a lack of language materials. We lack these resources, and the single research available to us (Tang and Chen, 2014) is deficient in diversity. Extracting ironic expressions item by item from comprehensive corpora is a time-consuming and laborious operation, as the amount of irony in comprehensive corpora is less than 2%, according to our preliminary analysis. To obtain sufficient linguistic materials, we extract candidates by recovering expressions that contain ironic constructions. We may discover other ironic constructions among the candidates we extract, as individuals frequently combine ironic constructions in one context to increase the ironic level or underline the ironic tendency of the entire phrase. As a result, we can use these newly discovered constructions to extract further prospective candidates and continue doing so until no additional candidates are discovered. We invite annotators to rate the candidates' ironic level and exclude items

that truly express ironic meanings. Then, we annotate each item's ironic elements, reversal devices, and literal and contextual emotions, and create an irony corpus comprising 949 items.

Additionally, we rephrase the ironic portions of each item and solicit annotations to rate the ironic level of the rephrased versions. By comparing the scores of the original items to their less ironic rephrased variants, we can measure and examine the effect of each reversal device. We anticipate that these findings can serve as future references for the automatic detection task by assisting researchers in assigning different weights to various linguistic devices.

7.1.5 Possible applications

The Irony Identification Procedure (IIP) can be used to generate new irony corpora. Restricted by the same rule, various corpora will be able to communicate with one another. Basing on IIP, the Annotator Guide we design for this project will also assist individuals without a linguistic background in comprehending the work and providing more precise annotations. On the one hand, IIP and our Annotator Guide would not place stringent constraints on annotators' subjective judgments, as we do not impose strict constraints on their depiction of contextual meaning. On the other hand, they provide a consistent rationale and procedure for identifying irony. Additionally, this procedure can be applied to language teaching. By gradually comprehending this complex linguistic phenomenon, a second language learner's degree of difficulty can be reduced.

Ironic constructions, which we discuss in this thesis, also serve as valuable study materials. Each of these warrants additional investigation. By compiling them into a single thesis, other academics may be able to conduct comparative research and discover links between them. It can also be beneficial for language teachers. By

describing and comparing the characteristics of each construction, learners can develop a systematic grasp of irony. Additionally, learners should be encouraged to pay greater attention to these constructions in context.

The Chinese Irony Corpus is one of a few corpora devoted entirely to Chinese irony. Automatic irony identification has a lot of potential in the field of text mining, particularly for applications that need semantic analysis, such as author profiling, product evaluation, online harassment, and hate speech detection. The scarcity of Chinese irony training data continues to be a hurdle in creating computationally-intensive Chinese irony detection methods. Now, the benchmark for detecting irony in Chinese is 60.3 percent (see Xiang et al., 2020). We anticipate that the addition of the Chinese Irony Corpus will improve this accuracy.

7.2 Limitations

Naturally, this thesis has significant limits. The most obvious is that we do not make a clear distinction between irony and sarcasm. We do not undertake this work because, in the absence of direct markers provided by the original speaker/writer, it is difficult to determine whether an expression is intended to be stinging and hurtful, as sarcasms, in comparison to ironies, rely more on the subjective motivations of the speakers/writers. Meanwhile, without context, all reversal devices and the majority of constructions can be interpreted as ironic or sarcastic, making it difficult to assert that a reversal device or a construction is frequently employed to establish irony or sarcasm. Perhaps in future study, we can attempt to establish a more effective distinction between these two notions and their actual applications.

Another constraint is the corpus's size. Although we have gathered sufficient linguistic materials for this research, in order to create an irony corpus that can be used for a variety of research objectives, the corpus's size and variety of items need be

increased. Meanwhile, because our corpus extracts items using constructions, there is no doubt that we will inevitably overlook some ways or devices that do not rely on constructions. Additionally, with the rise in popularity of social networking sites, our language's specialized usages are updated on a daily basis. A static study will never be able to keep up with the changing language. As a result, we should continue to search for additional patterns capable of expressing ironic meanings in the future.

7.3 Future works

Although irony has been a point of contention for researchers for some decades, it remains a subject worthy of investigation from a variety of aspects. For future works, we will first broaden the corpus's scope by increasing the quantity of ironic items and diversifying the linguistic devices or constructions they employ. Language evolves. Irony is forming. As a result, the irony corpus should be updated on a regular basis to suit the demands of study.

Additionally, we intend to apply our research findings to the field of computational linguistics. Our ultimate goal is to use the structured constructions we discover and the quantifiable results we obtain to machine learning and automatic detection tasks. Although irony is an abstract linguistic device that should theoretically be difficult to identify automatically, we believe that by applying linguistic principles and considering the characteristics of constructions, robots might improve their irony detection accuracy.

Moreover, because we view irony as both a linguistic device and a psychological process, we intend to combine our linguistic research with additional psychological ideas and methodologies in the future. We seek to gain a better understanding of the nature of irony. Additionally, we seek to examine the real procedure through which people generate and grasp ironies. Combining these two areas and applying them to

our study enables us to gain a more complete understanding of how irony works in practice and, potentially, to develop a more effective method for simulating this process on computers.

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