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SEMANTICO-PRAGMATIC ASPECTS OF THE METALINGUISTIC USES OF

COMPARATIVES IN MANDARIN CHINESE AND ENGLISH

by

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DISSERTATION

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ABSTRACT

SEMANTICO-PRAGMATIC ASPECTS OF THE METALINGUISTIC USES OF

COMPARATIVES IN MANDARIN CHINESE AND ENGLISH

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The University of Texas at Arlington, 2023

Supervising Professor: Laurel Stvan

This dissertation examines a group of Metalinguistic Comparatives (MCs) in Mandarin Chinese, exploring what they suggest about the universality of comparatives. I show that Chinese MCs encode a more fine-grained scalarity of the subjective attitude conveyed, which varies in orientation, i.e., positive or negative, and strength, i.e., subtle or strong. By analyzing their uses in conversational settings, I claim that MCs are pragmatical devices for speakers to reject or rectify an utterance. In examining the shared Chinese 'than' marker in both Negative MCs (NegMCs) and Rhetorical Comparatives (RCs), I show that both subtypes are comparatives with a contrastive and negative sense, rather than a description of a degree-differential ordering relation. Furthermore, I propose a Logic Convertibility analysis for comparatives, showing a comparative is logically equivalent to the negation of the flipped inequality relation, i.e., $(d_1 > d_2) \Leftrightarrow \textbf{NOT } (d_2 > d_1)$, which builds the foundation for an implied negative inference to be retrieved. Finally, I suggest English comparatives are pragmatically ambiguous in that they descriptively encode a degree-differential inequality relation but can simultaneously produce a metalinguistic reading, i.e., to convey an evaluative attitude.

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DEDICATION

This work is dedicated to the most important individuals in my life, without whom I could not have navigated the stress of the pandemic and my PhD studies. I am truly blessed to have Xingwu Yang as my cousin. A wealthy and giving man, he sponsored my higher education in China and the UK while also providing generous support for our entire family through business investment, healthcare cost and education expenses. Inspired by his belief in Buddhism, he encourages me to view every challenging situation as an opportunity for practice, fostering compassion and gaining wisdom. My gratitude extends immeasurably to my mother, Qunyi Zhang, a capable woman who ensures I am unburdened by financial stress. She's not only a remarkable mother who supports my unconventional life decisions, but also a wise individual who is in a constant state of growth. I am profoundly thankful to my father, Runmin Yang, for instilling qualities such as integrity, compassion, and humility in my character. He has always provided me with assurance that I can lean on my family in times of need. I am also deeply indebted to my sister, Chao Yang, who dedicates time from her own business to be with and care for our parents, especially during the pandemic when I couldn't be there. Lastly, I acknowledge the karmic forces that have led me to this point. Without the challenges presented to me over the past five years, I might never have embarked my journey of practicing Buddhism or discovered the profound depths of life's experience.

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LIST OF ABBREVIATIONS

DC = DEGREE COMPARATIVE

DE = Downward Entailing

FCI = Free Choice Item

MC = METALINGUISTIC COMPARATIVE

MN = METALINGUISTCI NEGATION

NegMC = NEGATIVE METALINGUISTIC COMPARATIVE

NPI = NEGATIVE POLARITY ITEM

RC = RHETORICAL COMPARATIVE

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CHAPTER 1

INTRODUCTION

1.1 Background

The comparative as a complex topic has received much attention in linguistics literature. This dissertation investigates the semantics and pragmatics of the metalinguistic usage of comparatives. By identifying a group of Metalinguistic Comparative (MC) constructions in Mandarin Chinese, I will show that they further substantiate the subjectivity semantic analysis but pragmatically are devices for a speaker to make an array of assertions: a subtle denial or rejection to an existing utterance contained in 'than'-clause. Different from regular comparatives of which the comparison is made based on a degree-deferential relation,

1.1.1 Initial note on MCs

MCs were first briefly discussed in McCawley (1998) as having a metalinguistic interpretation, rather than a degree comparison reading, in that (1) refers to 'the degree to which it is correct to say' that John is stupid or that Mary respects John, but *not* the degree to which John is stupid or the amount of respect that Mary has for John (McCawley 1998, p700, ex. (12)).

(1)   a.   John is more stupid than ignorant.

         b.   Mary more respects than admires John.

McCawley noted that, unlike Degree Comparatives (DCs), MCs can take non-gradable adjectival predicates, such as *financial* and *legal* in (2a), or even a clause that itself is comparative or superlative, as shown in (3a) and (3c).

(2) a. Your problems are more financial than legal.

  b. *Your problems are more financial than mine.

(3) a. John just had better luck than his rivals more than he was superior to them.

  b. Sam is more the biggest liar in Portland than the most famous person there.

  c. *John just had more better luck than his rivals than Al did.

1.1.2 Imprecision semantics for MCs

Morzycki (2011) analyzed MCs as comparisons made along a single scale of (im)precision, proposing an imprecision semantic account, where Lasersohn's (1999) *pragmatic halo* is recast into a set of alternatives in the Hamblin-style alternative semantics[1]. Pragmatically, MCs are used for speakers to regulate the imprecision of their utterances, hence pragmatic slack

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[1] By expanding the pointwise function of alternatives to propositions in the Hamblin-style alternative semantics (Hamblin 1973), Morzycki's semantics for '*x is more$_{MC}$ α than β*' in an evaluation world of w is formulated as the following:

(i) $[[more_{MC}\ \alpha\ than\ \beta]]^{d,C} =$
  $\{\lambda x\lambda w[\max\{d':\exists a[a \in [[\alpha]]^{d',C} \wedge a(x)(w)]\} > \max\{d'': \exists b\ [b \in [[\beta\ ]]^{d'',C} \wedge b(x)(w)]\}]\}$

Specifically, this framework defines that '*x is more$_{MC}$ α than β*' means the maximum degree of precision at which the extension of α contains something true of x is greater than the maximum degree of precision at which the extension of β contains something true of x. Therefore, the meaning of a sentence *George is more dumb than crazy* as the degree of precision George could be said dumb is higher than the degree of precision that George could be said to be crazy (Morzycki 2011).

regulators. Thus, (4) has a meaning of the degree of precision 'George is dumb' is larger than the degree to which 'George is crazy.'

(4)   George is more dumb than crazy.

1.1.3 Subjectivity semantics for MCs

Another account, evidenced by the distinct lexicalization of MC markers in Greek and Korean, establishes that MCs indicate a subjective mode of attitude, expressing either a preferred judgement on the appropriateness of a proposition or (dis)preference towards some propositional content (Giannakidou and Starvrou 2009; Giannakidou and Yoon 2011). In (5), while both Greek clausal 'than' markers are grammatical, the nuanced meaning conveyed between (5a) and (5b) suggests that *para* serves as an MC-THAN, expressing the speaker's dispreference towards the 'than' proposition that Paul is industrious.

(5)   a.   o Pavlos   ine   perissotero/pjo   poli eksipnos   **apoti**   erghatikos.   [G]

               the Paul   is-3s   more   clever   than   industrious

               'Paul is more clever than industrious.'

        b.   o Pavlos   ine   perissotero/pjo   poli eksipnos   **para**   erghatikos.   [G]

               the Paul   is-3s   more   clever   than   industrious

               'Paul is clever more than industrious.'

               (Roughly equivalent to: Paul is clever rather than industrious.)

This is further illustrated in (6) and (7). When a dispreference is intended by the speaker towards the 'than' clause, only *para*, the MC-THAN marker, is legitimate.

(6)   kalitera   na   se   dino   **{para/#apoti}**   na   se   taizo!   [G]

      better   SUBJ   you   dress.1SG   than   SUBJ   you   feed.1SG

      I would rather clothe you than feed you.' (You eat a lot!)

(7)   kalitera   na   pethano   **{para/#apoti}**   na   ton   pandrefto!   [G]

      better   SUBJ   die.1SG   than   SUBJ   him   marry.1SG

      'I would rather die than marry him!' (I prefer to die than marry him.)

Korean data present not only two 'than', *pota* and *kipota*, used in DC and MCs, respectively, as in (8) and (9), but also a unique Negative MC-THAN, *nuni*, which conveys an irreversible offensive attitude of the speaker. In (10), with *kipota*, in 'going out with you' is still considered as a possible option but just less preferred than 'staying home.' In contrast, the use of *nuni* in (10b) expresses an emphatically negative emotional attitude of the speaker towards the 'than'-proposition, 'going out with you' (Giannakidou and Yoon 2011).

(8)   Kim-un   [Lee-ka khun-kes]-**pota**   (te)   khu-ta.   [K]

      Kim-TOP   [Lee-NOM tall-F.Rel]-than   more   tall-DECL

      'Kim is taller than Lee is tall.'

(9) Kim-un   enehakca-la-**kipota**   chelhakca-i-ta.   [K]

Kim-TOP   linguist-DECL-saying.than   philosopher-be-DECL

'Kim is more of a philosopher than he is a linguist.'

(10) a.   onulpam   ne-wa   naka-**kipota**   cip-ey   iss-keyss-ta.   [K]

tonight   you-with   go out-saying.than   home-LOC stay-will-DECL

'I prefer to stay home rather than to go out with you tonight.' (I am tired.)

b.   onulpam   ne-wa   naka-**nuni**   (charari) cip-ey   iss-keyss-ta. [K]

tonight   you-with   go out-rather than   (rather)   home-LOC stay-will-DECL

'I would rather stay home than go out with you tonight.' (I hate you.)

Under the subjectivity semantic account, MCs are thus established as a distinct grammar species, which indicates a subjective (dis)preferential attitude to the appropriateness or the content of the proposition.

1.2 Identifying Mandarin Chinese MC constructions

Among the small literature of MCs (Bresnan 1973; Embick 2007; Giannakidou and Stavrou 2009; Giannakidou and Yoon 2011; Pullum and Huddleston 2002; Lechner 2007; McCawley 1998; Morzycki 2011), there lacks Mandarin Chinese data. What is concerning about this is analysis made based on the forced use of Chinese DC marker *bǐ* in MC instances, as shown in (11) (Lin 2009; p. 17, ex. (57)).

(11) *Zhāngsān (hěn) yònggōng **bǐ** (hěn) cōngmíng.

Zhangsan very diligent COM very clever

'Zhangsan is more diligent than clever.'

Motivated by this, this work identifies a group of Mandarin Chinese MC constructions, which are treated as *xuǎnzé fùjù* 'Preference Constructions' in Chinese grammar book (Huang and Liao 2017)[2]. As in (12), the construction *yǔqí...bùrú* lit. 'rather than... not as good as', is used when the speaker conveys a 'preference' between two clauses headed by *shuō* 'say'.

(12) **yǔqí** shuō nǐ de wèntí shì fǎlǜ fāngmiàn de, [Chinese]

than say 2SG NOM problem be law aspect NOM

bùrú shuō shì jīngjì fāngmiàn de.

more say be finance aspect NOM

'Rather than saying your problems are financial, it is better to say they are legal.'

('Your problems are financial rather than legal.')

Another preference construction in Chinese *nìngkě...yěbù* presents features of NegMCs seen in Korean. *Nìngkě* lit. 'would rather', marks a preference with a compromised or unideal flavor, and *yěbù* lit. 'not' takes what is dispreferred. Mandarin Chinese native speakers use this construction to convey a strong dispreference instead of a preference. As shown in (13), 'I die'

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[2] A subvariant of MC construction of *yǔqí...bùrú* is included in Chapter 2, where Chinese MCs are given a thorough discussion to illustrate the fine-grained scalarity in the orientation and the strength of the subjective attitude they encode.

taken by *nìngkě* indicates preference of an unideal option, but *yěbù* delivers a strong dispreference towards 'I marry him.'

(13)   wǒ   **nìngkě**   sǐ   **yěbù**   jiàgěi   tā.   [Chinese]

        1SG   rather   die   than   marry-to   3SG

        'I would rather die than marry him!'

Mandarin Chinese MC constructions, as I will show in Chapter 2, further substantiate the subjectivity analysis. They reveal a fine-grained scalarity of the subjective attitude in terms of the orientation, i.e., preference or dispreference, and the strength, i.e., subtle or strong. The analysis leads to some key research questions that I will discuss in what follows.

1.3 Research questions

Based on the current analyses on MCs and my research on Chinese MCs, there are several questions to be asked. I list them below and then provide an expanded discussion in each subsection.

1. How does the judgement on the appropriateness of propositions align with the subjective preferential attitude as argued in the semantics of MCs?

2. With *yěbù*, lit. 'too/aslo' and 'not', being argued as the Negative MC-THAN, what is *yě* 's function?

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3. Is there any overlapping between Negative MCs and comparatives containing Negative Polarity Items (NPIs), both of which are analyzed as to convey negativity?

1.3.1 Pragmatics of MCs

While the (dis)preference is a subjective attitude given its preference nature, one question often asked is how the judgement on the appropriateness of propositions is aligned with a preferential attitude?

As discussed in Giannakidou and Yoon (2011), the judgement on the appropriateness of propositions is irrelevant to the truth value of the propositions embedded. Rather, it is the subjective judgement made by the attitude anchor, typically the speaker, that renders one proposition more appropriate than the other. For instance, in an MC instance of 'John is more a philologist than a linguist', it could well be that it is true that John is a linguist. Therefore, it is in this sense that it is subjective.

Another way to address this is to investigate the pragmatics of MCs. That is, what does a speaker intend to convey by employing MCs? The appropriateness of the proposition or the preference towards the propositional content may be what the subjective attitude is geared towards, but they can be aligned in the pragmatics of MCs. Specifically, MCs, as I will argue in Chapter 2, are pragmatic devices utilized by speakers to deny or reject an existing utterance without using a negation marker.

1.3.2 *Yě*'s function in NegMC-THAN

Unlike English, Greek or Korean, the identified Chinese MC markers are not subvariant of DC-THAN. Instead, they are defined as conjunction words in these constructions, which are termed as *xuǎnzé fùjù* 'Preference Constructions' in Chinese grammar book (Huang and Liao 2017). Examining the literal meaning of the four conjunction words, *yǔqí* 'rather than', *bùrú* 'not as good as', *nìngkě* 'would rather', and *yěbù* 'too/also not', a question one would ask is why *yěbù* is argued as the NegMC-'than' if it does not to bear the meaning of a comparative? If *bù* 'not' is analyzed to spell out the negativity, what is *yě*'s function here?

This issue will be addressed in Chapter 3. I show that *yě* 'too/also', an additive marker, receives an analysis of an NPI 'even' when used in simple clauses. In bi-clausal constructions, *yě* serves as a propositional 'even' operator, spreading an 'even' reading to the clause *preceding* it, and adding emphatic effect to the main clause. This suggests an 'even not' analysis for *yěbù*. Thus, when taking two propositions, *p* yěbù *q* is analyzed as EVEN *p* NOT *q*.

1.3.3 Overlap between NegMCs and RCs

In addition to subtypes of MCs and DCs, another subtype of comparatives is observed. In (14) and (15), with the presence of Negative Polarity Items (NPIs), a rhetorical flavor is conveyed, hence Rhetorical Comparatives (RCs; Yoon 2011). They are analyzed as pragmatically driven by the need to convey the negative implicature towards 'than'-clause and a large-difference presupposition between 'more'-clause and 'than'-clause.

(14)   Jack is richer than you'*ll Ever* be.

i)   Negative implicature: You will never be as rich as Jack.

ii)   Large difference presupposition: There is a significant large difference in the

degree of wealth between Jack and you in any foreseeable future.

(15)   Jack would waste money on gambling more happily than he'd *give a penny* to the

charity.

i)   Negative implicature: Jack would not give a penny to the charity.

ii)   Large difference presupposition: There is a significant difference between the

possibility that Jack wastes money on gambling and that of him giving a penny to

the charity.

A question to be asked here is whether there is any overlapping between RCs and

NegMCs, both of which convey negativity. This is made more intriguing by the empirical data

that Chinese NegMC-THAN, *yěbù*, also serves as the RC-THAN. Additionally, how are these

two types of comparatives related to DCs?

In Chapter 4, I will show that RCs are a close relative to NegMCs for two reasons: i) they

both make comparisons between two propositions more in the contrastive sense than the degree-

differential sense; and ii) pragmatically they both make a negative inference readily accessible to

the hearer. This analysis suggests an update on the grouping of comparatives. Specifically, the

current categories of comparatives in the literature, DCs versus MCs, in terms of the subjectivity,

and DCs versus RCs, differing in the presence of NPIs, should be revised. Comparatives used

metalinguistically should be those that contrast two propositions and convey an evaluative

attitude. In contrast, comparatives that purely denote a degree-differential comparison are those used descriptively.

1.4 Structure of the dissertation

The rest of the dissertation provides an in-depth discussion and analysis to address issues raised above.

In Chapter 2, a group of Mandarin Chinese MC constructions are identified. I show that they encode an array of subjective attitudes towards propositions embedded. Following Giannakidou and Yoon (2011), I employ Potts' (2007) Expressive Indices (EI) system to demonstrate the relativized attitudes within each MC construction and the fine-grained scalarity across the three constructions. Further, I suggest a link between MCs and Metalinguistic Negation (MN) and show that MCs are pragmatic devices for speakers to reject an utterance subtly.

In Chapter 3, I investigate the function of *yě* in *yěbù*, the NegMC-THAN, and analyze it as an 'even' item with polarity sensitivity. That is, it marks NPIs in negative environments, hence, an NPI- 'even' item. It also serves as a propositional 'even' operator in bi-clausal constructions. The analyses suggest that *yě*'s function in *yěbù* is a combined effect: it renders the subordinate clause a low likelihood sense and makes the negativity more emphatic. I then propose an analysis of EVEN *p* NOT *q* for *p* yěbù *q*.

In Chapter 4, motivated by the negative element parameterized in Chinese NegMC-THAN, I move to the negativity-conveying comparatives. I propose a Logic Convertibility Analysis, depicting the logic equivalences inherent to comparatives. Specifically, the ordering

relation denoted by the inequality operator entails a negation of the flipped inequality relation. That is, $(d_1 > d_2)$ can be logically converted to **NOT** $(d_2 > d_1)$. This analysis accounts for the underlying negative force in a comparative operator and sets up a pragmatic interpretation. Crucially, under conditions such as NPI-containing 'than'-clause and/or a low-likelihood 'more'-clause, a negative inference is generated and made available to the hearer.

Chapter 5 concludes the dissertation with a summary of major suggestions, the theoretical significance and future research direction.

CHAPTER 2

METALINGUISTIC COMPARATIVES IN MANDARIN CHINESE[3]

2.1 Introduction

In this chapter, I identify three MC constructions, *yǔqí…bùrú*, *yǔqí…nìngkě*, and *nìngkě…yěbù* in Mandarin Chinese, showing they do not involve comparisons of degrees but convey a subjective attitude towards propositions embedded. Following Giannakidou and Yoon (2011), I propose the multidimensional semantics of MCs that capture both i) descriptive and expressive dimension of meanings and ii) the relativized strength and orientation encoded in each construction. Further, I suggest a novel connection between MCs and Metalinguistic Negation (MN), indicating that English MCs in can be understood as a pragmatic device to subtly or strongly reject the *than*-proposition without using negation.

The chapter is organized as the following: Section 2.2 provides the three identified Chinese MC constructions, *yǔqí…bùrú*, *yǔqí…nìngkě*, and *nìngkě…yěbù*, showing that they are distinct from Degree Comparatives (DCs). In examining different emotional attitudes encoded in each variant of MC constructions, I show, in Section 2.3, the gradience of MCs can be logically represented in expressive dimension (Potts 2007). In section 2.4, I explore the potential connection between MCs and Metalinguistic Negation (MN) and show MCs can be pragmatic devices for a speaker to reject an utterance. In section 2.5, I summarize the chapter.

2.2 MC constructions in Mandarin Chinese

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[3] This chapter is a revised version of a joint work by Suwon Yoon and Meng Yang drafted in 2021.

Metalinguistic Comparatives (MCs) are comparatives that take two propositions which contain non-gradable predicates. Unlike the degree inequality ordering relation denoted by Degree Comparatives (DCs), MCs are attitudinal in nature and convey a subjective assessment on the appropriateness of a proposition or a preference towards the propositional content (McCawley 1998; Giannakidou and Starvrou 2009; Giannakidou and Yoon 2011).

In what follows, I examine a group of Mandarin Chinese constructions, traditionally treated as Preference Constructions (*xuǎnzé fùjù)* in grammar books (Huang and Liao 2017): (i) *yǔqí…bùrú…,* (ii) *yǔqí…nìngkě,* and (iii) *nìngkě…yěbù.* I show they bear core properties of MCs in that they convey a preferential or dispreferential evaluative attitude towards the embedded propositions. Section 2.3.1 starts with a discussion on the basic properties of Chinese DCs, demonstrating how MCs are systematically distinguished from DCs. In 2.3.2, I analyze the different emotional attitude encoded in each Chinese MC marker and suggest that descriptively they share the same semantics, conveying a preferential attitude more towards 'more'-clause than the 'than'-clause, but they differ in expressive attitudes in terms of orientation, positive or negative, and strength, subtle or strong, of this attitude.

2.2.1 DCs in Mandarin Chinese

To demonstrate Chinese MCs are distinct from DCs in terms of the distinct lexicalization and function, I provide some discussion on Chinese DCs, showing that they construct degree-differential inequality comparisons, and do not indicate subjective attitude.

2.2.1.1 Chinese DCs mark a degree-differential comparison

Chinese DCs take two entities and compares them along a dimension denoted by the predicate. The basic pattern of a DC is shown in (1)[4].

(1)   X COMPARE Y dimension   (Li and Thompson 1989)

Here *X* and *Y* are two entities being compared. 'COMPARE' holds a place for the comparative morpheme, and 'dimension' the predicate. The comparative establishes an ordering relationship between two degrees along the dimension, with the comparative marker *bǐ* lit. 'compare' rendering a superiority ordering relation, and *bùrú* (or *méiyǒu*) lit. 'not as' an inferiority ordering relation (Li and Thompson 1989), as shown in (2) below.

(2)   a.   tā   **bǐ**   nǐ   gāo.

            3SG   COM   2SG   tall

            'She/he is taller than you.'

       b.   tā   **{bùrú/méiyou}**   nǐ   gāo.

            3SG   COM   2SG   tall

            'She/he is not as tall as you.'

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[4] There have been many other studies in the literature on Chinese *bǐ* comparative since this analysis by Li and Thompson (1989), but I use this analysis here since it depicts the basic structure and function of degree comparatives in Chinese.

Similar to degree comparative morphemes in Korean and Greek, Chinese DC markers, *bǐ* and *bùrú*, can take a measure phrase, compare degrees of verb phrases, or make multiple-topic comparison (Tsao 1989), as shown in (3), (4) and (5).

(3)   tā   **bǐ**   liǎngmǐ   gāo.

3SG   COM   two meters   tall

'She/he is taller than two meters.'

(4)   tā   {**bùrú/méiyou**}   nǐ   xǐhuān   zhāngsān.

3SG   COM   2SG   like   Zhāngsān

'She/he doesn't like Zhāngsān as much as you do.'

(5)   tā   yīngwén   **bǐ**   wǒ   fǎwén   shuōde   hǎo.

3SG   English   COM   1SG   French   speak-PART   good

'She/he speaks English better than I speak French.'

2.2.1.2 Chinese DCs do not indicate a subjective attitude

Unlike English, Chinese DC markers cannot construct MCs. As noted in the literature (Lin 2009; pp. 17, ex. (57)), (6) is ungrammatical.

(6)   *Zhāngsān   (hěn)   yònggōng   **bǐ**   (hěn)   cōngmíng.

Zhangsan   very   diligent   COM   very   clever

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'Zhangsān is more diligent than clever.'

However, what Chinese DC marker *bǐ* can do is to compare the degree to which Zhangsan is diligent to the degree to which Zhangsan is clever by adding *de chéngdù* lit. 'the degree of', as shown in (7).

(7)   Zhāngsān   yònggōng de   chéngdù **bǐ**   cōngmíng de   chéngdù da.

        Zhangsan   diligent NOM degree   COM clever   NOM degree   great

        'The degree to which Zhangsan is diligent is greater than the degree to which he is clever.'

Note that (7) is an instance of DCs since the comparison is based on a degree-differential inequality relation. It does not indicate the subjective mode as Chinese MCs, as I will discuss in the next section.

2.2.2 Preference and dispreference conveyed by Chinese MCs

In this section, I identify three Chinese MC constructions, *yǔqí…bùrú, yǔqí…nìngkě,* and *nìngkě…yěbù,* which are treated as 'Preference Constructions' in Chinese grammar book *(xuǎnzé fùjù*; Huang and Liao 2017). In discussing their function, I show that they do not mark a degree-differential inequality relation seen in DCs. Rather, they convey the speaker's preferential or dispreferential attitude towards embedded propositions.

2.2.2.1 *yǔqí…bùrú*, a happy preference

One typical function of the construction *yǔqí...bùrú* lit. 'than…not as good as' is to take two propositions headed by the particle *shuō* 'say', conveying a meaning of 'it is more appropriate to say … than to say...'. As shown in (8), it does not compare the degree to which Zhangsan is clever or diligent. Instead, it is used to convey the speaker's subjective judgement on the appropriateness of the embedded propositions. Crucially, the judgement is independent of truth value of the propositions.

(8) **yǔqí** shuō Zhāngsān cōngmíng, **bùrú** shuō tā yònggōng.

than say Zhangsan clever more say 3SG diligent

'Rather than saying Zhangsan is clever, it is better to say that he is diligent.'

'Zhangsan is diligent rather than clever.'

Another function of this construction is to take two verbal phrases, i.e., two propositional contents, to convey a preference towards one over the other, as shown in (9).

(9) **yǔqí** zài zhèr děng chē, **bùrú** zǒu zhe qù.

than LOC here wait vehicle more walk PART go

'I prefer walking there than waiting for the bus.'

This construction cannot be used in DC instances, as shown in (10).

(10) (*yǔqí) tā **bùrú/méiyou** nǐ gāo.

than 3SG COM 2SG tall

'She/he is not as tall as you.'

In both of its functions, this construction is employed by native speakers of Chinese to convey a preference towards what is taken by *bùrú* with no hard feeling intended from the speaker to what is taken by *yǔqí*. As such, I analyze this construction as a positive preference MC.

2.2.2.2 *yǔqí… nìngkě,* a compromised preference

Yǔqí…nìngkě, lit. 'than...would rather', is a subvariant of *yǔqí…bùrú* under the function of taking two verbal phrases. While both constructions convey a preference, *nìngkě* contains a compromised flavor. As shown in (11), with the use of *nìngkě,* 'going there on foot' is marked as an unideal option.

(11) **yǔqí** zài zhèr děng chē, **nìngkě** zǒu zhe qù.

than LOC here wait vehicle rather walk PART go

'I'd rather walk there than waiting for the bus.'

('I choose to walk despite that it is not an ideal option since it is better than waiting for the bus.')

Note, however, these two constructions both convey a preference, rather than a dispreference, opposed to what is conveyed by the Negative MC construction I am going to discuss.

2.2.2.3 *nìngkě…yěbù,* a negative dispreference

The third construction, *nìngkě…yěbù…*, roughly 'would rather… than…,' is employed when a speaker intends to convey a strong *negative* emotive stance or an emphatic dispreference, towards the *yěbù* 'than'-proposition. As shown in (12), the intended meaning is not to convey the speaker's preference towards death, but simply her least preference in marrying him.

(12)	wǒ	**nìngkě**	sǐ	**yěbù**	jiàgěi	tā.
	1SG	rather	die	than	marry-to	3SG

'I would rather die than marry him!'

Nìngkě in this construction still marks a preference with a compromised flavor, however, its role here is to build up the strong dispreference geared towards the *yěbù*-proposition[5]. *Yěbù* morphologically consists of an additive particle 'also/too' and a negative element 'not. The function of these two morphemes is that *yě* provides alternatives for what is introduced by *nìngkě*, and then *bù* 'not' excludes all these alternatives.

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[5] *Yěbù* morphologically consists of an additive particle 'also/too' and a negative element 'not', conveys a strong negativity in that *yě,* an additive marker, provides alternative for what is introduced by *nìngkě*, and then *bù* 'not' (of *yěbù*) *excludes* all these alternatives

This construction is arguably the NegMC given the negativity it conveys along with the dispreference. Crucially, the negativity is encoded in MC markers, rather than depending on the content of the propositions. As shown in (13), when taking two neutral propositional contents, drink tea and drink coffee, the strong dispreference conveyed by this construction is still made clear.

(13)   wǒ   **nìngkě**   hē   chá   **yěbù**   hē   kāfēi.

1SG   rather   drink   tea   than   drink   coffee

'I would rather drink tea (even I don't like it) than drink coffee (because I hate coffee).'

2.2.3 Differences across three Chinese MCs

While all three Chinese MCs take two propositions and convey a preference or a dispreference, the nuanced differences across the three MCs seem to lie in the emotive element they encode. As I shown in (14), where *p* and *q* is the proposition embedded in MC-MORE and MC-THAN, respectively, the first two constructions intend to convey a preference, whereas the third one conveys a dispreference, hence a NegMC. What sets (14a) and (14b) apart is the positive versus negative evaluative attitude of the speaker. Within the NegMC in (14c), both propositions are viewed negatively by the speaker, but the negativity is stronger in MC-'than'.

(14)   a.   *yǔqí* 'than' q, *bùrú* 'more' p.   [positively prefer]

       b.   *yǔqí* 'than' q, *nìngkě* 'rather' p.   [negatively prefer]

c. *nìngkě* 'rather' p, *yěbù* 'than' q. [negatively disprefer]

Crucially, this emotive stance is encoded in the MC markers rather than depending on the embedded propositions, as I show with examples in (15), where two neutral propositions are used in all three constructions, with 'have tea' always taken by MC-MORE, and 'have coffee' by MC-THAN.

(15) a. **Yǔqí** hē kāfēi, **bùrú** hē chá.

than drink coffee more drink tea

'I would prefer having tea more than having coffee (because I like tea better).'

b. **Yǔqí** hē kāfēi, **nìngkě** hē chá.

than drink coffee rather drink tea

'I would rather have tea (even it is not my favorite beverage) than have coffee.'

c. Wǒ **nìngkě** hē chá **yěbù** hē kāfēi.

1SG rather drink tea than drink coffee

'I would rather drink tea (even I don't like it) than drink coffee (because I hate coffee)!'

As indicated by the information provided in the parenthesis of the intended meaning, the negative and positive evaluative attitude conveyed along with preference or dispreference is made clear.

A question often asked is how the three MCs in (16) are interpreted differently from each other, where all pattern as MORE-'I die' THAN-'I marry him'.

(16)   a.   **Yǔqí**   jiàgěi   tā,   wǒ   **bùrú**   qù   sǐ!

              than   marry   3SG   1SG   more   go   die

              'I would (happily) prefer die to marry him.'

   b.   **Yǔqí**   jiàgěi   tā,   wǒ   **nìngkě**   qù   sǐ!

              than   marry   3SG   1SG   rather   go   die

              'I would (even) prefer die than marry him.'

   c.   wǒ   **nìngkě**   sǐ   **yěbù**   jiàgěi   tā!

              1SG   rather   die   than   marry-to   3SG

              'I would rather die than marry him!'

My answer to this question is (16a) indicates that the speaker evaluates 'I die' positively, regardless of how commonsensically death is undesired. Slightly different from this, (16b) marks a negative view of the speaker towards 'I die', nonetheless, it is still preferred. With the NegMC in (16c), speaker's negative attitude towards both 'I die' and 'I marry him' are conveyed, but the negativity encoded in *yěbù* is stronger.

2.2.4 Concluding remarks

As MCs in English, Korean, and Greek, Chinese MCs take two propositions and mark a subjective attitude rather than a degree-differential comparison. In discussing the emotive element conveyed along with a preference or dispreference, I show two unique features of Chinese MCs. First, the emotive element is independent of the descriptive meaning. That is, both MC-MORE, *nìngkě* and *bùrú* , convey a preference in the descriptive level, but the former encode a negative emotive meaning and the latter positive. Second, what is dispreferred or less preferred is associated with a negativity element, but with different strength. Specifically, both MC-THAN markers, *yǔqí* and *yěbù,* take what is less preferred or dispreferred and encode negativity, weak in the former and strong in the latter.

2.3 Attitudes with expressive components

In this section, I propose an innovative dual layer Expressive Index (EI) to illustrate the relativized attitudes encoded in Chinese MCs.

2.3.1 Potts' (2007) Expressive Index

Within the system of CI logic (Potts 2007), an expressive like *damn* or *bastard* carries expressive content, which is separate from the descriptive meaning of the utterance, as shown in (17).

(17)   That *bastard* Jerry was late again. (Uttered by Tom)

Descriptive meaning: 'Jerry was late again'

Expressive meaning: Tom has a negative feeling towards Jerry at the time of the

utterance.

A triple shown in (18) is used to indicate the orientation of emotional stance, i.e., positive

or negative, and the strength of the expressive level that one individual holds towards the other,

as in (18).

(18)   An expressive index is a triple $\langle a\ \mathbf{I}\ b \rangle$, which a and b are in the domain of entities and $\mathbf{I}$

$\subseteq$ [-1, 1].

Potts's numerical assignment follows the principle of how it is relative to the extreme

value. That is, *bastard* in (17) receives an EI shown in (19a), whereas (19b) could be one for a

more negative item *f---ing.*

(19)   a.   <[tom] [-.5, 0] [jerry]>, Tom feels negatively toward Jerry.

b.   <[tom] [-1, -.5] [jerry]>, Tom feels very negative towards Jerry.

2.3.2 EI for MC markers

Following Giannakidou and Yoon's (2011) employment of EI in capturing a speaker's attitude towards a proposition, I propose a positive EI for *bùrú,* the Chinese MC-MORE, a negative EI for *nìngkě,* the Chinese NegMC-MORE, and a stronger negative EI for *yěbù,* the NegMC-THAN, shown in (20), (21), and (22), respectively.

(20) *bùrú* 'more' contains expressive index <*a* **I** *p*>, where ***a*** is the individual anchor, *p* the proposition it embeds; and **I** ranges between [0, 1].

(21) *nìngkě* contains expressive index <*a* **I** *p*>, where ***a*** is the individual anchor, *p* the proposition it embeds; and **I** ranges between [-1, 0].

(22) *yěbù* contains expressive index <*a* **I** *q*>, where ***a*** is the individual anchor, *q* the proposition it embeds; and **I** ranges between [-1, -.5].

The numerical intervals are assigned based on the following three features of Chinese MCs: i) different orientation of emotional attitudes in two MC-MORE, positive in *bùrú* and negative in *nìngkě,* and ii) the different strength in the negativity of NegMC-MORE and NegMC-THAN, weak in *nìngkě* , and strong in *yěbù*.

2.3.3 Relativized attitudes in MCs

In this section, I propose to innovate the system by incorporating dual layers of EI which hold the speaker's attitudes towards *both* propositions within each MC construction.

For an effective illustration, I propose, first, using the following spectrum, ranging from strongly negative to strongly positive, to show the relativized emotional attitudes conveyed by the speaker. Here, p is the proposition taken by MC-MORE, and q MC-THAN.

(23)   *yǔqí* 'than'   *bùrú* 'more'

-1_____*q*_____0_____*p*_____1

strongly negative   strongly positive

(23)   *yǔqí* 'than' *nìngkě* 'rather'

-1_____*q*_*p*_____0_____1

strongly negative   strongly positive

(24)   *yěbù* 'than'   *nìngkě* 'rather'

-1_____*q*_____*p*_____0_____1

strongly negative   strongly positive
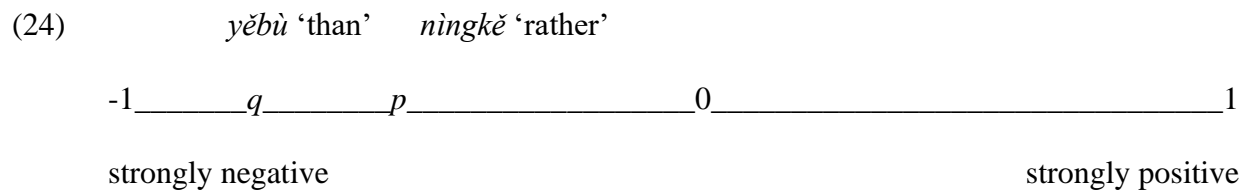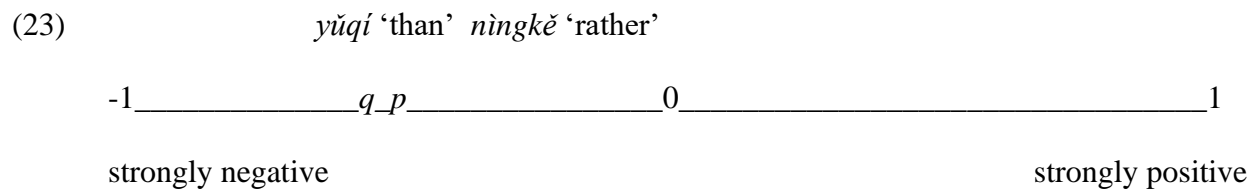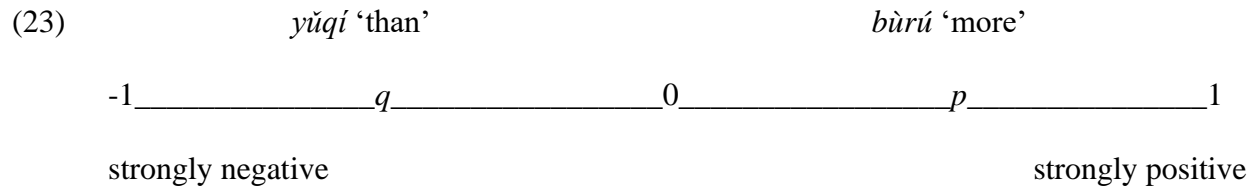
With this, I propose a refined EI system for each MC construction, as in (25), (26), and (27):

27

(25) MC construction *yǔqí q*, *bùrú p* contains an expressive index of $\langle a\ \mathbf{I_1}\ p, a\ \mathbf{I_2}\ q\rangle$, where *a* is the individual anchor, *p* and *q* the propositions embedded; and $\mathbf{I_1}$ ranges between [0, 1] and $\mathbf{I_2}$ ranges between [-1, 0][6].

(26) MC construction *yǔqí q*, *nìngkě p* contains an expressive index of $\langle a\ \mathbf{I_1}\ p, a\ \mathbf{I_2}\ q\rangle$, where *a* is the individual anchor, *p* and *q* the propositions embedded; and $\mathbf{I_1}$ ranges between [-1, 0], and $\mathbf{I_2}$ ranges between [-1, 0].

(27) MC construction *nìngkě p, yěbù q* contains an expressive index of $\langle a\ \mathbf{I_1}\ p, a\ \mathbf{I_2}\ q\rangle$, where *a* is the individual anchor, *p* and *q* the propositions embedded; and $\mathbf{I_1}$ ranges between [-1, 0], and $\mathbf{I_2}$ ranges between [-1, -.5].

The advantage of the current proposal is that it accounts for how three MC constructions systematically divide the labor of carrying relativized emotional attitudes held by the speaker towards both propositions.

2.3.4 Concluding remarks

Giannakidou and Yoon (2011) employ Potts' (2007) EI system to analyze the negative conventional implicature contained in the Korean NegMC-'than' *nuni*. Building on this, in this section, I posit an innovated EI for each Chinese MC construction. By including within the same

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[6] *Yǔqí* is assigned for a weak negative EI since Chinese native speakers could sense the subtle negativity a speaker conveys via this marker.

EI system, the emotional attitudes towards *both* propositions, the relativized attitudes conveyed by Chinese MCs are made clear.

2.4 Connection between MCs and Metalinguistic Negation

Thus far I have shown that, in an independent utterance, a MC construction essentially conveys the speaker's (dis)preference towards two propositions with different levels of positivity or negativity. In a conversational setting, however, I argue that the core feature of MCs is their varied strength of rejecting with a previous utterance.

2.4.1 English MCs and MN

Imagine a situation where two people, A and B, are having a conversation, and A says that Paul is a linguist. B responds in the following ways:

(28)   a.   Paul is a philologist *rather than* a linguist.   *[subtle rejection]*

          b.   Paul is *not* a linguist *but* a philologist.   *[strong rejection]*

While both responses convey B denies the utterance asserted by A, the strength in his objection to A's utterance differs, subtle in (28a) and strong in (28b).

The *not...but* in (29) seems to be a Metalinguistic Negation (MN). Horn (1989) analyzes the function of MN is to reject or refute an utterance in its appropriateness, different from the descriptive truth-functional negation, as shown in (29).

(29) a. NOT {Appropriate/Correct} (p)   (Horn 1989)

   b. NOT TRUE (p)

The rejection can be made on any ground, as I show in (30), (31), and (32).

(30) Chris didn't *manage* to solve the problem - it was quite easy for him.

(31) I didn't manage to trap two *mongeese* - I managed to trap two *mongooses*.

(32) I am not his daughter – he is my father.

Horn noted that archetypal frame for MN follows the pattern of *not X but Y*, as shown in (33), but the presence of *but* is optional, since the sense of contrast between what is rejected and what is provided as a ratification.

(33) I have **not** come to bring peace **but** a sword.

The discussion here suggests English MCs can be understood to reject an utterance without using a negation marker.

2.4.2 Chinese MCs and MN

Similarly, the Chinese MC construction, when used to judge the appropriateness of a proposition, seems to function as a subtly rejection to the utterance embedded in 'than'-clause. As shown below, MC construction used in in (34) conveys a gentle rejection compared to (35).

(34) **yǔqí** shuō Bǎoluó shì yǔyánxuéjiā, **bùrú** shuō tā   shì   wénxiànxuéjiā.

      than say Paul   be linguist   more say 3SG be   philologist

      'It is more appropriate to say that Paul is a philologist than to say he is a linguist.'

(35) Bǎoluó **bú shì** yǔyánxuéjiā. tā **shì** wénxiànxuéjiā

      Paul   not be   linguist   3SG be   philologist.

      'Paul is not a linguist. He is a philologist.'

Interestingly, the construction *búshị..(ér)shì* lit. 'not be...but be' in (35) presents the archetypical MN *not ...but...*frame. Analyses in the literature on *búshì...érshì* suggest it functions as a MN. Teng (1974) analyzes *búshì* 'not be' as a sentential denial marker, and it must be followed by *érshì,* as shown in (36).

(36) a. tā **bú** yào lái.   [regular negation]

          3SG NEG want come

          'He does not want to come.'

      b. tā **búshì** yào lái, **érshì** bèipò   lái   de.   [MN]

          3SG not   want come but   forced   come PART

'Not that he wants to come but that he is forced to come.'

Wible and Chen (2000) analyze *shì* as the focus marker and mentioned the difference between the two types of negation markers, *bù* and *búshì*. For instance, a regular negation constructed in (37a) cannot be followed a ratification that is made based on the 'appropriateness' of an utterance.

(37) a.   Zhāngsān **bù**   xǐhuān Mǎlì. (#Ta   ai   Mali).   [regular negation]

   Zhangsan NEG   like   Mali (3SG   love   Mali)

   'Zhangsan does not like Mali. #He loves Mali.'

   b.   Zhāngsān **búshì** xǐhuān Mǎlì. (Tā **shì** ài Mǎlì).   [MN]

   Zhangsan not be like   Mali (3SG be love Mali)

   'Zhangsan does not like Mali - He loves Mali.'

Another piece of evidence that *búshì...érshì* function as 'not...but' MN frame is that only *érshì,* the lexicalized contrastive *but* in Mandarin Chinese, works in this construction. In contrast, (38b), the concessive *but* leads to ungrammaticality. This is aligned with Horn's (1989) analysis on the two types of *but*s, where he points out in MN *but*'s functions is contrastive, rather than concessive.

(38) a.   tā **búshì** yào lái, **érshì** bèipò lái de.

   3SG not   want come but   forced   come PART

'Not that he wants to come but that he is forced to come.'

b.　　#tā **búshì** yào lái, **dànshì** bèipò lái de.

3SG not　　want come but　　forced come PART

'Not that he wants to come but that he is forced to come.'

As such, the potential connection between MCs and MN I suggested seems to be borne out by the Chinese data as well.

2.4.3 Concluding remarks

In this section, I attempted an exploration between MCs and MN. I first show that in English MCs, when used to convey a judgement on the appropriateness of a proposition, function similar to MN but only with a subtle force in the rejection. Then I identified a Chinese MN construction, to show its connection to Chinese MCS. The analysis on English and Chinese MC and MN data both suggest that MCs can serve as a pragmatical devices to reject an utterance without using a negation marker.

2.5 Summary

In this chapter, a group of Chinese constructions *yǔqí…bùrú…*, *yǔqí… nìngkě…*, and *nìngkě…yěbù …*, have been identified as instances of MCs in Mandarin Chinese. I showed that MCs in Mandarin Chinese systematically convey varying emotional attitudes. In particular, two

MC-THAN markers, *yǔqí* and *yěbù,* differ in the degree of negativity, and two instances of MC-MORE markers, *nìngkě* and *bùrú*, differ in the orientation of emotional attitude, with *nìngkě* 'rather' carrying a negativity force, and *bùrú* 'more' positivity. Following Giannakidou and Yoon's (2011), I proposed an innovation on the EI system (Potts 2007) by incorporating *both* emotional attitudes to show the relativized attitudes for MC constructions in Mandarin Chinese.

Further, I discussed a potential connection between MCs and MN. I showed that both English and Mandarin Chinese data suggest that MCs, when used to convey the speaker's judgement on the appropriateness of the embedded propositions, may be the pragmatic devices for speakers to reject and rectify an utterance without using a negation marker.

CHAPTER 3

COMPARATIVES WITH A CONTRASTIVE SENSE

3.1 Introduction

In Chapter 2, *yěbù* lit. 'too/either not' is analyzed as 'than' in Negative Metalinguistic Comparatives (NegMCs). In this chapter, I show that *yěbù* also serves as 'than' in Rhetorical Comparative (RCs), another subtype of comparatives that contain negative implicature in 'than'. While *bù* 'not' is responsible for the negativity contained in NegMC-'than', what is exactly *yě's* function in these two constructions? And what does this suggest about NegMCs and RCs?

Motivated by this, in this chapter, I examine *yě's* function. I show that *yě* is an EVEN item that serves two functions: i) it makes a negative sentence emphatic; and ii), it operates on bi-clausal structures, rendering an 'even' reading on the preceding clause and generating an emphatic flavor to the main clause. With *bù* parameterizing negativity, I propose an analysis of EVEN *p*, NOT *q* for *p yěbù q*, suggesting they both NegMCs and RCs are comparatives with a contrastive sense.

The structure of this chapter is as follows: Section 3.2 shows the fitness *yěbù* serving as RC-'than', introducing the motivation of the investigation on *yě*. Section 3.3, I describe *yě's* basic usages as a focus additive presupposition marker, and its function as an 'even' item used with minimizers, scalar NPs and in bi-clausal constructions, such as concessive hypotheticals 'even if', concessive adversatives 'even though', and NegMCs 'than'. I propose a preliminary analysis for *yě* as an EVEN item that operates on either a constituent, marking an emphatic

negative sentence, or on a proposition, producing an 'even' reading on the subordinate clause while generating an emphatic flavor for the main clause. In Section 3.4, in comparing *yě* with *dōu,* another 'even' item, in terms of marking non-scalar NPs, *wh*-indeterminates, and comparatives containing NPIs, I demonstrate that unlike *dōu*'s insensitivity to polarity environment, *yě* marks scalar constituents and constrained in negative environments, suggesting an NPI-EVEN analysis. In Section 3.5, in applying this analysis to *yě*'s role in *yěbù*, I propose that *p yěbù q* can be analyzed as EVEN *p*, NOT *q*. I show that both NegMCs and RCs can be analyzed as EVEN *p*, NOT *q* in that they both have a 'more' clause located at the lower end of a likelihood scale and a 'than'-clause conveying negativity. This also suggests that both NegMCs and RCs are comparatives with a contrastive sense. Section 3.6 summarizes the chapter.

3.2 *Yěbù* as the Rhetorical Comparative 'than'

I have shown in Chapter 2 that the Chinese Degree Comparative (DC) 'than' *bǐ* cannot help to construct MC instances. As shown in (1), *yěbù* is analyzed as the NegMC-'than' in Mandarin Chinese, with *bù* 'not' being responsible for the strong negativity conveyed by the construction and *yě* serving as an additive presupposition marker. Specifically, in the NegMC construction, *nìngkě* 'would rather'*… yěbù* 'than'*…*, *yě* provides alternatives for what is introduced by *nìngkě,* and then *bù* of *yěbù* excludes all these alternatives.

(1)　　Wǒ　　nìngkě　　sǐ　　yěbú/*bǐ　　jià　　gěi　　tā.
　　　　1SG　　would rather die　　yebu　　　　marry　to　　3SG
　　　　'I would rather die than marry him.'

Yěbù, or *yě méiyǒu*[7], both patterning as '*ye* + not', also serves as 'than' in Rhetorical

Comparatives (RCs), in which 'than' is analyzed to contain a negative implicature. Featured with

an emphatic *non-referential* standard, such as *ANYbody,* in (2), or a Negative Polarity Item, NPI,

such as *lift a finger* in (3), contained in the 'than'-clause, RCs convey emphatic and negative

effect, key factors to a rhetorical flavor (Yoon 2011, p. 2015-6, ex. (13a) and (13f)).

(2)   Jack is taller than *ANYbody* else is.

(3)   Jack does volunteer jobs more often than he *lifts a finger* to help his wife.

I show in (4) and (5) that *yěbù,* or *yě méiyǒu,* helps to realize RC constructions in Chinese

whereas DC-'than' *bǐ* causes ungrammaticality. Xiang (2005) observes that an insertion of *dōu,*

analyzed as 'even', improves the ungrammaticality, as shown in (4c), and thus claims *dōu*

licenses NPIs in comparatives in Chinese. While her analysis is on the right track, a complex

comparative with NPIs such as (5c) reads unnatural, if not ungrammatical, in that it makes 'lifts a

finger' literal.

(4)   a.   Shéi   **yě**   **méiyǒu**   Jiékè   gāo.

            anybody ye   not   Jack   tall

            'Nobody is taller than Jack.

---

[7] *méiyǒu* lit. 'not have', sometimes shortened as *méi* 'not', is a negation marker in the negation of the verb *yǒu*
'have' or in perfective aspect. In the discussion here, *méiyǒu* is the negation of comparatives, as shown in (i).
(i)   Zhāngsān   méi (yǒu)   Lǐsì   gāo.
        Zhangsan   not   Lisi   tall

(Jack is taller than *ANYbody* else is.)

b.　　*Jiékè **bǐ** shéi　　　　gāo.

Jack　　bi　anyone　　　　tall

'Jack is taller than *ANYbody* else is.'

c.　　Jiékè **bǐ** shéi **dōu** gāo.

Jack　　bi　anyone　even　tall

'Jack is taller than *ANYbody* else is.'

(5)　a.　　Jiékè jīngcháng zuò yìgōng,　　**yě bù** bāng qīzǐ yìdiǎn máng.

Jack　　often　　do　volunteer job　ye　not　help　wife　a bit　　help

'Jack does volunteer jobs more often than he *lifts a finger* to help his wife.'

b.　　*Jiékè zuò yìgōng,　　**bǐ** bāng qīzǐ yìdiǎn máng jīngcháng.

Jack　do　volunteer job　bi　help　wife　a bit　help　often

'Jack does volunteer jobs more often than he *lifts a finger* to help his wife.'

c.　　?Jiékè zuò yìgōng,　　**bǐ** bāng qīzǐ yìdiǎn máng **dōu** jīngcháng.

Jack　do　volunteer job　bi　help　wife　a bit　help　even　often

'Jack does volunteer jobs more often than he *lifts a finger* to help his wife.'

While *bù* 'not' of *yěbù* captures the negativity contained in both NegMC-THAN and RC-THAN, one question arises: what exactly is *yě*'s role in NegMCs and RCs?

In what follows, I will show that *yě* lit. 'too/also/either,' an additive focus presupposition marker, functions as an EVEN item in NegMCs and RCs. It either operates on a single constituent in a monoclausal environment, or on a propositional level in bi-clausal constructions. Due to its predominant distribution in negative or hypotheticals, in comparison to *dōu*, a less polar constrained 'even' item, an NPI-EVEN item analysis is given to *yě*.

3.3 *Yě* as an 'even' item

Three major functions of *yě*, relevant to our discussion here, are introduced in this section. They include i) a focus additive presupposition marker, meaning 'too/also/either', ii) an 'even' item to make a negative sentence emphatic, and iii) an 'even' item in bi-clausal constructions, such as NegMCs and concessive hypotheticals. I will show that the flavor that *yě* conveys suggests an NPI-EVEN item analysis, which operators on a constituent in a mono-clausal sentence or a proposition in a bi-clausal construction.

3.3.1 *Yě* as a focus additive presupposition marker

The basic function of *yě* is an additive presupposition marker, meaning 'too', in affirmative sentences, or 'either' in negative sentences, as shown in (6) and (7), respectively (The Oxford Chinese Dictionary, pp.874).

(6)   Wǒ   yě   zhīdào   dá'àn.

        1SG too   know   answer

        'I know the answer, too.' (There exits someone else who knows the answer.)

(7)   Wǒ   yě   bù   zhīdào   dá'àn.

        1SG either not know   answer

        'I don't know the answer, either.' (There exists someone else who doesn't know the

        answer.)

As the alternatives a focus marker presupposes can vary depending on where the prosodic

prominence is placed on (Rooth 1985, 2006), *yě* in object fronted sentences as in (8) has two

different reading with different prosodic prominence[8].

(8)   a.   **Dá'àn**   wǒ   yě   bù   zhīdào.

              answer   1SG also   not know

              'I don't know the answer, either.'

              (There exists *something else* that I do not know.)

        b.   Dá'àn   **wǒ**   yě   bù   zhīdào.

              answer   1SG also   not know

              'I don't know the answer, either.'

              (There exists *someone else* who doesn't know the answer.)

---

[8] This is also true in an affirmative sentence.

Note that as an additive focus maker, *yě* scopes over the constituent *preceding* it, which, I will show, is consistent with how it works as an 'even' item.

3.3.2 *Yě* renders a negative sentence emphatic

As observed in Greek *ke* (Giannakidou 2007) and Korean *-to* (Lee 2005) that an additive marker tends to have dual behaviors and is used as an EVEN item, *yě* produces an 'even' reading (Hole 2004) and is used in scalar contexts (Yang 2018). I will show that minimizers or NPs with prosodic emphasis in negation require *yě*'s obligatory presence to convey an 'not even' reading, i.e., an emphatic effect (Contemporary Chinese Dictionary 2016; Kleeman and Yu 2010).

3.3.2.1 *Yě* used with minimizers

Yě is obligatory when phrases headed by ONE[9], i.e., minimizers (Bolinger 1972; Horn 1989), in negative sentences to convey an emphatic effect as shown in (9) and (10).

(9) a. Wǒ bú lèi.   [non-emphatic]

     1SG not tired

     'I am not tired.'

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[9] This includes VPs headed by ONE, a unique construction in Chinese, *yí V yě bú,* lit. 'one V ye not V', conveying 'not V at all', as in (ii) (Lv 1999).

(ii) Tā (yí) dòng yě bú dòng de tǎng zài dì shàng.
      3SG one move ye not move ADV lie LOC floor
      'He is lying on the floor without moving at all.'

b.   Wǒ   yìdiǎn   yě   bú   lèi.   [emphatic]

      1SG   a bit   ye   not   tired

      'I am not tired at all.'

(10)   a.   Méiyǒu   rén   lái.   [non-emphatic]

      not   person   came

      'Nobody showed up.'

b.   Yí   gè   rén   yě   méiyǒu   lái.   [emphatic]

      One   CL   person   ye   not   come

      'Not even one person showed up.'

      ('Nobody showed up at all.')

While the strong negative scalar values contained in minimizers in English build an implicit *even* (Schmerling 1971; Fauconnier 1975a, 1975b; Heim 1984; Horn 1989), a minimizer in Mandarin Chinese requires *yě,* the explicit 'even', to be present to convey the emphatic negative flavor.

3.3.2.2 *Yě* used in scalar phrases

An emphasized NP in negative sentence also requires *yě*'s presence. As shown in (11), *yě* needs to be inserted at the position preceding the negation marker. The emphasized object NP, indicated by bold and capital letters, moves to the left of *yě*.

(11) Tā **TÓU** yě bù tái, zhuānxīn xuéxí.

   3SG head ye not raise intently study

   'He is so concentrated on his study that he does not even raise his head.'

   Unlike minimizers that are scalar in nature, this NP, 'his head', appears to be non-scalar. However, with the prosodic emphasis placed on it and the effect of *yě,* it conveys a scalar reading in that 'raise his head' is the smallest movement to indicate one is distracted. In other words, (11) is to convey 'He is not even raising his head, let alone making any other bigger movements', hence, 'his single focus on study.'

   Note that only when *yě* is used with scalar phrases that it functions as an 'even' item. When *yě* follows a non-scalar NP, it functions as a focus marker or additive marker, giving an 'either' reading instead of 'even'.

(12) Zhāngsān yě bù zhīdào zhè jiàn shì.

   Zhangsan ye not know this CL matter

   'Zhangsan doesn't know about this, either.'

3.3.2.3 Concluding remarks

While English *even* functions as a presupposition marker (conventional implicature in the sense of Karttunen and Peters (1979) that produces alternatives and ranks them on a scale of likelihood (Horn 1989; Kay 1990; Karttunen and Peters 1979), Greek data present variants of 'even' item that present different polar sensitivity (Giannakidou 2007). The discussion here suggests that *yě* is an 'even' item that shows negative polarity sensitivity. Attached to minimizers or scalar NPs, the 'even' reading of *yě* adds to a negative sentence an emphatic flavor.

3.3.3 *Yě* in bi-clausal constructions

Yě is also an obligatory particle in hypothetical concessive constructions, concessive adversative constructions, and NegMCs. In these constructions, *yě* takes a position as an adverb in the main clause but scopes over the clause to its left, producing an 'even' reading.

3.3.3.1 *Yě* in concessive hypotheticals

Yě is an obligatory particle in concessive hypotheticals, used with conjunction words meaning 'even if' in Mandarin Chinese, *jíshǐ* in (13) and *jiùsuàn* in (14). *Yě* seems to play a larger role than its partners in constructing an 'even if' reading. This is evidenced by two facts: first, *jíshǐ* in (13) and *jiùsuàn* in (14) can be omitted without affecting the 'even if' reading as long as *yě* is present. Second, unlike English, where the main clause can be an independent grammatical sentence by itself, (13b) is ungrammatical when *yě* is present but the concessive clause is not. [10]

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[10] (13b) can be grammatical when *yě* functions as an additive presupposition marker, conveying 'They will stand by you, too.'

(13) a. (Jíshǐ) nǐ bù chénggōng, tāmen yě huì zhīchí nǐ de.

Even if 2SG not succeed 3PL ye will support you DE

'They will stand by you even if you don't succeed.'

b. #Tāmen yě huì zhīchí nǐ de.

3PL ye will support you DE

'They will stand by you.'

(14) (Jiùsuàn) xīwàng hěn miǎománg, wǒ yě bú huì fàngqì.

Even if hope very slim 1SG ye not will give up

'Even if the hope is slim, I would not give up.'

3.3.3.2 *Yě* in concessive adversatives

Another type of bi-clausal sentence that *yě* is used is concessive adversative

constructions, where the first clause is introduced with *jìnguǎn*, meaning 'even though' as in

(15).

(15) (Jìnguǎn) yǔ xià de hěn dà, tā yě méiyǒu chídào.

Even though rain fall DE very heavy 3SG ye not late

'Even though it was raining heavily, he did not arrive late.'

While these two constructions are distinguished by the factivity of the concessive clause, absent in concessive hypotheticals and present in concessive adversatives (Huang and Liao 2017), *yě* in both constructions plays the same role: an 'even' item to indicate a value at the lowest or near-lowest end of scale of likelihood, one associated with English *even* (Karttunen and Peters 1979; Horn 1989; Kay 1990). In both constructions, *yě* makes the concessive clause the least likely situation in the given set of alternatives for the main clause to be true.

Note that opposed to *yě*'s negative polarity sensitivity as an 'even' item observed in simple clauses, *yě* does not require a negative environment in these bi-clausal constructions. However, its effect seems to be the same, which is making the main clause more emphatic. Essentially, in these bi-clausal constructions, *yě* produces an 'even' reading on the concessive clause while making the main clause more emphatic, suggesting a dyadic EVEN operator.

3.3.3.3 *Yě* in Negative Metalinguistic Comparatives

Finally, *yě* is also obligatory in the fixed construction *nìngkě... yěbù…*, NegMCs discussed in Chapter 2. In this construction, *nìngkě* 'would rather' takes an unideal/undesired option to convey a strong emphatic dispreference towards *yěbù* 'than'-proposition. As shown in (16), the clause taken by *nìngkě,* 'I would do more work', is commonsensically undesired. The preference given to it only to convey a strong dispreference towards 'I would let you work and get tired.'

(16) Wǒ   nìngkě   duō   gàn   diǎn,   yě   bù   yuàn   lèi   zháo   nǐ.
      1SG   would-rather more   do   bit   ye   not   would   tire   PART   2SG

'I would rather do more work than making you tired.'

The analysis proposed above for *yě* is borne out in NegMCs. Specifically, the unideal option that *nìngkě* takes can be analyzed as a less likely preferred choice ranked on a scale of all alternatives of preference, an effect of 'even', which renders an emphatic effect on *yěbù* clause 'I do not want you to be tired'.

3.3.4 Concluding remarks

In Section 3.3, I have shown three major functions of *yě*, namely i) a focus additive presupposition marker, ii) an EVEN item in mono-clausal negative sentences to convey an emphatic effect, and iii) a dyadic EVEN operator in bi-clausal constructions, producing an 'even' reading to the preceding clause and an emphatic effect for the main clause. Another suggestion to be drawn from the discussion in this section is that *yě,* as an 'even' item in a mono-clausal sentence, seems to be sensitive towards negative environment.

3.4 *Yě* as an NPI-EVEN item

In this section, I provide a comparison between *yě* and *dōu,* another Chinese EVEN item, to demonstrate *yě*'s polar sensitivity. Three pieces of evidence are discussed to support an NPI-EVEN analysis for *yě*. First, *yě* as an 'even' item is constrained in negative environments with the presence of a scalar item whereas *dōu* works in both affirmative and negative environments, with scalar or non-scalar constituents. Second, in marking *wh*-indeterminates, an NPI type, *yě* is

constrained in negative environments. Third, in comparatives containing NPIs, only when it is a negative environment that *yě* can be used as an 'even' item. This analysis suggests that *yě* of *yěbù* in both Chinese NegMCs and RCs can be analyzed as a 'more'-clause with an 'even' reading, and a 'than'-clause that is made emphatic. Hence, *p yěbú q* can be analyzed as EVEN *p* NOT *q*.

3.4.1 *Yě* versus *dōu* in marking non-scalar NPs

Dōu is a better studied adverb than *yě* due to the important function as a universal quantifier and a distributive operator, meaning 'all/both' or 'each/every', as well as the role it plays in *lián…dōu* lit. 'including…all' roughly an 'even' construction (Tang 1979; Tsao 1990; Shyu 1995, 2004; Hole 2004)[11]. As there are different accounts proposed for its function as 'even', in what follows, I will provide first a brief discussion and then show it functions as an 'even' item with an inherent scalar semantics. While *dōu* marks both scalar or non-scalar NPs in both affirmative and negative environments, *yě* requires a scalar NP and a negative environment to function as an 'even' marker.

3.4.1.1 *Dōu* as a distributivity operator

One basic function of *dōu* 'all' or 'both', is a universal quantifier, which takes scope over expression to its left (Cheng 1995; Feng & Pan 2018; Hole 2004; Jiang 1998; Jiang & Pan 2013;

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[11] Other functions of *dōu* are not presented here since they are not as relevant to the discussion.

Lee 1986; Lin 1998a; Liu 1990; Pan 2006). As shown in (17) and (18), the NPs that *dōu* quantifies over needs to be plural.

(17) {tāmen/*tā}   dōu   tóngyì.

   3PL   all   agree

   'They all agree.'

(18) liǎng   gè   xuéshēng   dōu   zǒu   le.

   two   CL   students   both   leave   ASP

   'Both students have left.' (Not 'two students left.')

It can also quantify over NPs with a quantifier word *měi,* 'every/each', as shown in (19).

(19) měi   (yí)   gè   xuéshēng *(dōu)   huì   kāichē.

   every one   CL   student   all   capable drive-car

   'Every student knows how to drive.'

In both the plural NP or *měi*-NP situation, *dōu* is analyzed as a distributivity operator (Lee 1986; Yeh 1986; Hsieh 1994; Huang 1994, 1996; Lin 1996, 1998a; Cheng 1991, 1995; Lin 2004; among others) since it distributes over the members of a plural cover (Schwarzschild 1991, 1996).

3.4.1.2 *Dōu* 'even' marks non-scalar NPs

Another major function of *dōu* is its usage in *lián ... dōu* construction[12], lit. 'including…all', a focus construction that is akin to English *even* (Tang 1979; Tsao 1990; Shyu 1995, 2004; Hole 2004; among others) and has some inherent scalar semantics (Portner 2002). Similar to *yě,* this construction takes a minimizer or a scalar VP to convey an 'even' reading, as show in (20) and (21).

(20) wǒ   (lián)   yì   kǒu   dōu   méi   hē.

      1SG   lian   one   CL   dou   not   drink

      'I didn't (even) drink a drop.'

(21) wǒ   (lián)   dòng   dōu   méi   dòng.

      1SG   lian   move   dou   not   move

      'I did not even move.'

Different from *yě, dōu* can take a non-scalar NP to produce scalar meaning given its inherent scalar semantics. As shown in (22), only *dōu* but not *yě* produces a scalar reading when used with Zhangsan, a non-scalar NP[13].

(22) Zhāngsān   {dōu/#yě}   lái   le.

      Zhangsan   {dou/#ye}   come   ASP

---

[12] In the *lián ... dōu* construction, *lián* can be omitted.
[13] The 'even' reading requires a prosodic emphasis placed on the NP Zhangsan whereas a universal operater 'all/both' reading has an emphasis on *dou* itself.

'Even Zhangsan showed up.'

The above examples also show that *dōu* is used in both the affirmative and negative environment, showing no polarity sensitivity.

3.4.2 *Yě* versus *dōu* in marking *wh*-indeterminates

Another evidence to substantiate *yě*'s NPI nature as an 'even' item is its constraints in negative environments in marking *wh*-indeterminates, a subtype of NPIs. In what follows, I will first show *wh*-indeterminates in Chinese, when marked by *dōu* 'even', become exhaustive or emphatic. Then I will present the asymmetric distribution between *dōu* and *yě* in marking NPIs. That is, while *dōu* exhibits no polarity sensitivity, *yě* is constrained in negative environments.

3.4.2.1 Chinese *wh*-indeterminates

Wh-question words, a subtype of NPIs, have been observed to be used non-interrogatorily, producing exhaustive Free Choice Item (FCI) meaning, as in *wh-ever* in English (Horn 2000), or non-exhaustive, existential interpretation (Giannakidou 1998; Giannakidou and Quer 2013; Giannakidou and Yoon 2016; Haspelmath 1997; Hoeksema 2010; Matthewson 1996, among others; see Giannakidou 2011 for a fuller overview of the languages that have nonexhaustive NPIs), paraphrasable with 'some or other', hence also called *wh*-indefinites, or *wh*-indeterminates.

Mandarin Chinese *shénme* 'what' is a *wh*-word of this sort. In addition to its interrogative use in (23), it can be used as a non-exhaustive, existential item, indicating existence with no specific reference, producing a 'something' meaning (Giannakidou & Cheng 2006, 2013; Lin & Giannakidou 2015) as shown in (24a) and (24b), or as an exhaustive item, read as 'everything' in an affirmative sentence or 'nothing' in a negative sentence, as shown in (24c) and (24d).

(23) tā   mǎi   le   shénme?   [interrogative]

      3SG   buy   ASP   what

      'What did she buy?'

(24) a.   tā   hǎoxiàng   mǎi   le   shénme.   [existential, affirmative]

            3SG   probably   buy   ASP   what

            'She bought something.'

            (There existed something that she bought.)

      b.   tā   méi   mǎi   shénme.   [existential, negative]

            3SG   not   buy   what

            'She didn't buy anything.'

            (There didn't exist something that she bought.)

      c.   tā   shénme   **dōu**   mǎi.   [exhaustive, affirmative, hence FCI]

            3SG   what   dou   buy

            'She buys EVERYthing.'

d. tā   shénme   **dōu**   méi   mǎi.   [exhaustive, negative, emphatic NPI]

3SG   what   dou   not   buy

'She didn't buy ANYthing.'

As highlighted above, *dōu* co-occurs with *shénme,* helping to produce an exhaustive reading. While earlier literature attributes this to *dōu'*s universal quantifier force (Kuroda 1965; Huang 1998; Cheng 1991, 1995; Li 1992; Lin 1996, 1998b; among others), I show two pieces of evidence to support an 'even' analysis for *dōu.*

First, crosslinguistic data show that *wh-*words are interpreted as free choice reading via some kind of modal marking or focus additive particles, meaning 'too' 'and' 'or' or 'even', as shown in (25) (Giannakidou and Cheng 2006, p.136, ex (1)). This suggests that *dōu'*s role here is one associated with its 'even' function rather than 'all' function.

(25) a. *opjos-dhipote,* lit. who-modal marker (Giannakidou 1998, 2001)   [Greek]

b. *qual-sevol,* lit. who-modal marker (Quer 1998)   [Catalan]

c. *qual-quiera,* lit. who-modal marker (Quer 1999)   [Spanish]

d. *wie dan ook,* lit. who-then-too (Rullmann 1996)   [Dutch]

e. *nwukwu-na,* lit. who-or (Lee 1997; Gill *et al.* 2002)   [Korean]

nwukwu-to, lit. who-and

f. *dare-demo,* lit. who-even (Nishigauchi 1986)   [Japanese]

g. *jo-bhii,* lit. which-even (Dayal 1995; Lahiri 1998)   [Hindi]

Second, it is seen crosslinguistically that existential NPIs, when marked by an EVEN item, become exhaustive and emphatic. Lahiri (1998) identifies a group of NPIs in Hindi that morphologically consist of an indefinite or a weak predicate indicating small amounts and a particle *bhii,* 'also' or 'even', shown in (26).

(26)	*ek bhii*	'any, even one'	*ek*	'one'
	Koii bhii	'anyone, any (count)'	*koii*	'someone'
	Kuch bhii	'anything, any (mass)'	*kuch*	'something'
	Zaraa bhii	'anytime, ever'	*zaraa*	'soemtime'
	kahiiN bhii	'anywhere'	*kahiiN*	'somewhere'

The discussion here suggests that *dōu* marks *wh*-indeterminates, as an 'even' item, producing exhaustive or emphatic reading. Importantly, *dōu* exhibits no polarity sensitivity in marking *wh*-indeterminates. This, I will show, sets *yě* apart from *dōu* in that *yě* is only allowed in negative environment.

3.4.2.2 *Yě* constrained in negative environments

Yě, as an EVEN item, can also mark *wh*-indeterminates to create exhaustive or emphatic reading. However, what sets *yě* apart from *dōu* is that *yě* is only allowed in negative sentences, as shown in (27).

(27) a. tā shénme dōu/*yě mǎi. [universal exhaustive FCI]

3SG   what   dou/*ye   buy

'She buys everything.'

b.   tā   shénme   dōu/yě   méi   mǎi.   [emphatic exhaustive NPI]

3SG   what   dou/ye   not   buy

'She buys everything.'

More examples are included here to show *yě*'s sensitivity to negative environment when making *wh*-indeterminates. In the following examples, different *wh*-indeterminates, when marked by *dōu/ yě* 'even', produce exhaustive or emphatic reading. Specifically, *shéi,* lit. 'who' in (28) reads as 'anyone whatsoever', *nǎlǐ,* lit. 'where' in (29) becomes 'anywhere whatsoever/wherever', *zěnme* lit. 'how' in (30) is interpreted as 'however way', and *shénme shíhou* lit. 'what time' in (31) becomes 'anytime whatsoever/whenever'. Crucially, the difference is made clear in these examples that *yě* leads to ungrammaticality in marking *wh*-indeterminates in affirmative sentences but is grammatical in negative sentences.

(28)   a.   tā   shéi   dōu/*yě   xǐhuān.

3SG   who   dou/ye   like

'He likes everyone.'

b.   tā   shéi   dōu/yě   bù   xǐhuān.

3SG   who   dou/ye   not   like

'He doesn't like ANYone.'

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('He likes no one.')

(29)   a.   tā   nǎlǐ   dōu/*yě   qù   guò.

              3SG   where   dou/ye   go   PFV

              'He has been to everywhere.'

       b.   tā   nǎlǐ   dōu/yě   méi   qù   guò.

              3SG   where   dou/ye   not   go   PFV

              'He hasn't been to ANYwhere.'

              'He has been to nowhere.'

(30)   a.   tā   zěnme   shuō   dōu/*yě   xíng.

              3SG   how   say   dou/ye   fine

              'However way he says, it is fine.'

       b.   tā   zěnme   shuō   dōu/yě   bù   xíng.

              3SG   how   speak   dou/ye   not   fine

              'However way he says it, it won't work.'

(31)   a.   tā   shénme shíhou   lái   dōu/*yě   xíng.

              3SG   what   time   come   dou/ye   fine

              'Whenever he comes works.'

b.　tā　shénme shíhou　lái　dōu/yě　bù　xíng.

　　　3SG　what　time　come　dou/ye　not　fine

　　　'Whenever he comes, it won't work.'

　　　'No matter when he comes, it won't work.'

The comparison between *yě* and *dōu* in this section suggests that *yě,* unlike *dōu*'s polarity insensitivity, is constrained in negative environments in marking *wh*-indeterminates.

3.4.3 *Yě* versus *dōu* in marking NPIs in comparatives

Another difference in distribution is in comparatives, in which *yě* only works when marking an NPI in a negative environment whereas *dōu* does not exhibit any polarity or scalarity sensitivity. As shown in (32), (33) and (34). It requires both the *wh*-indeterminate *shéi* lit. 'who', an NPI, plus a negative environment for *yě* to be a legitimate 'even' item.

(32)　Zhāngsān　bǐ　Yáomíng　dōu/*yě　gāo.

　　　Zhangsan　compare　Yaoming　even　tall

　　　'Zhangsan is taller than even Yaoming.'

(33)　Zhāngsān　bǐ　shéi　dōu/*yě　gāo.

　　　Zhangsan　compare　anyone　even　tall

　　　'Zhangsan is taller than anyone else.'

(34) Shéi   dōu/yě   méiyǒu   Zhāngsān gāo.

Anyone   even   not   Zhangsan   tall

'Zhangsan is taller than ANYone else.'

While the semantic meanings of (33) and (34) are the same, what (34) does is to employ

yě and the negation to create an 'even + not' pattern, which makes an emphatic negative

sentence, hence conveying a rhetoric flavor.

This *yěbù* 'even + not' solution appears to be a better option in complex comparatives

containing NPIs. As shown in (35), the employment of *dōu* makes the sentences unnatural, if not

ungrammatical, in that the minimizers convey a literal meaning, rather than an emphatic effect[14].

In contrast, (36) is arguably an equivalent of the intended English utterance in terms of the

rhetorical flavor. This is achieved by *bù* 'not' spelling out the negativity contained in the 'than'-

clause, and *yě* generating an emphatic flavor for the negativity.

(35) ?Géléisī shuō tiān tā **bǐ**   tā   huì   dòngtan yíxià **dōu** kuai.

Grace   say   sky fall than   3SG   would move   a bit   dou   soon

'Grace said the sky would sooner fall than she would budge an inch.'

(36) Géléisī shuō tiān tā le   tā   **yěbù**   huì   dòngtan yíxià.

Grace   say   sky fall ASP 3SG yě not   would   move   a bit

---

[14] Note that the failure of oddity in (37) is not caused by *dou* but mainly the non-negative environment, which
diminishes the rhetorical flavor of the minimizer. In other words, the rhetorical flavor requires the presence of a
minimizer, which in turn calls for a negative environment. The grammaticality and naturalness of (38) would not be
harmed if we switch *ye* to *dou*. However, since *yebu* appears to be a pattern that is seen in some fixed bi-clausal
constructions, the focus here remains on *yebu*.

'Grace said the sky would sooner fall than she would budge an inch.'

The discussion further substantiates *yě* is an 'even' item marking an NPI in negative environments to convey emphatic negative effect. Crucially, in comparatives that contain NPIs in 'than'-clause, *yěbù* 'even + not' delivers an 'even' reading onto 'more'-clause and makes the negativity-containing 'than'-clause emphatic.

3.4.4 Concluding remarks

In Section 3.4, *dōu,* another Chinese 'even' item, is introduced to demonstrate the asymmetric distribution between *yě* and *dōu.* While the universal and distributive operator, *dōu* lit. 'all/both' or 'every/each' also functions as an 'even' item that presents no sensitivity, *yě* is constrained in negative environments, obligated by scalar phrases, *wh*-indeterminates or NPIs in comparatives. This suggests an analysis of NPI-EVEN for *yě,* an 'even' item marking NPIs. Crucially, *yě* in *yěbù* 'even + not' in NegMCs or RCs is the combination of its two functions, i) an 'even' reading generated on the 'more'-clause, and ii) an emphatic effect delivered for the negativity-containing 'than'-clause.

3.5 *yěbù* analyzed 'EVEN… NOT'

Before I conclude the chapter, I return to another question raised at the beginning of the chapter. That is, what does the shared lexicalization of *yěbù* 'than' in both Chinese NegMCs and RCs suggest about these two types of comparatives? In other words, is there any potential

overlapping between these two subtypes of comparatives? Based on the analysis put forwarded for *yě,* I show that *p yěbù q* can be analyzed as 'EVEN *p* NOT *q*'. Essentially, NegMCs and RCs appear to overlap in their function of taking two clauses to contrast one with the other.

3.5.1 Semantics of *p yěbù q*

The analyses put forwarded in Section 3.4 and 3.5 suggest that *yě'*s role in *yěbù* as both the NegMC and RC 'than' is a joint performance of an 'even' propositional operator function and its negative emphatic power. Specifically, *yě* produces an 'even' reading for the 'more'-clause and at the same time makes the negativity-containing 'than'-clause read emphatic. Based on this, I propose that *p yěbù q* receives an analysis of 'EVEN *p* NOT *q*'.

The semantics of *yěbù* in bi-clausal constructions *p yěbù q* is the combined semantics of *yě* and *bù,* in which *yě,* a propositional 'even' operator operating on *p,* associates with the lowest end of a likelihood scale, akin to the Greek NPI-EVEN *akomi ke* (Giannakidou 2007)*,* and *bù* 'not' on *q,* indicating a proposition that is *not* likely to be asserted, as shown in (37).

(37)   *p yěbù q* has a semantics of the following:

a. There exist other propositions *r* that are alternatives to *p,*

b. for all *r* under consideration, *p* is the least likely to be asserted, and that

c. it is NOT likely to assert *q.*

Thus, *p yěbù q* presents a pattern of 'EVEN *p* NOT *q.'*

3.5.2 NegMCs and RCs: EVEN *p* NOT *q*

The analysis of *p yěbù q* seems to be borne out by the English NegMC 'than' and RC 'than'. As shown in (38), 'she would die' is the least likely to be asserted compared to other alternatives, such as 'she would rather not get married all her life', and yet it is still not as unlikely as to assert 'she would marry you'. Similarly, (39) has 'Jack does volunteer work often' as the least likely assertion among all possible alternatives, and yet it is still more likely an assertion than 'Jack lifts a finger to help his wife.'

(38)   She would rather die than marry you.   [NegMC]

(39)   Jack does volunteer work more often than he *lifts a finger* to help his wife.   [RC]

While literature has two parallel grouping mechanisms ongoing for comparatives, one that differs RCs from DCs in terms of NPIs presence, and the other sets MCs apart from DCs in terms of the subjective attitude indicated, the analysis here reveals some commonalities between NegMCs and RCs. First, both NegMCs and RCs have a 'more'-proposition that is ranked near the lowest end on a scale, be it one of preference, soonness of the occurrence of some events, or the degree of moral obligations. Therefore, there is an implicit *even* contained in both NegMC and RC 'more'-propositions. Second, what both NegMCs and RCs convey, pragmatically, is not an inequal relation of $p > q$ on the level that the predicate denotes, but 'not *q*', a negative utterance of the 'than'-proposition. That is, (38) is conveying 'she would never marry you' and (39) 'Jack does not lift a finger to help his wife'.

The analysis here suggests that commonalities between NegMCs and RCs is that both subtypes are comparatives with a contrastive, rather than a degree-differential base. The purpose, when a speaker employs them, is to make shown the negativity contained in 'than'.

3.6 Summary

Motivated by the preliminary observation that the NegMC-'than' *yěbù* lit. 'too + not' serves also as the RC-'than', in this chapter, I provided an investigation on the function of *yě* of *yěbù*. In discussing *yě*'s lexical and grammatical function, I showed that *yě* 'too/either', a focus additive presupposition marker, also functions as an 'even' item in negative sentences. It operates either on a constituent, delivering an emphatic flavor for a negative sentence, or on a clause in bi-clausal constructions, generating an 'even' reading to the preceding clause while adding an emphatic flavor to the main clause. The comparison between *yě* with *dōu*, another 'even' item that shows no polarity sensitivity, exhibited that *yě* only marks scalar constituents and is constrained in negative environments, indicating it is an 'even' item marking NPIs, i.e., an NPI-EVEN item. Given the emphatic effect *yě* produces in marking NPIs and its propositional operator function, *yě* of *yěbù* 'even not' in both *p yěbù q* performs two functions: as a dyadic EVEN operator, it brings out an 'even' reading on the *p* and, simultaneously, delivers an emphatic flavor for *q*. Hence, *p yěbù q* is given an analysis of EVEN *p* NOT *q*. I further showed that this analysis could account for English NgMCs and RCs in that both have a 'more'-clause located at the lower end of a scale, an effect of a built-in 'even', and both 'than'-proposition conveying negativity. I concluded the chapter with a suggestion that both NegMCs and RCs are

comparatives with a contrastive sense, rather than a degree-differential ordering relation, a topic

I will discuss in the next chapter.

CHAPTER 4

PRAGMATIC AMBIGUITY OF ENGLISH COMPARATIVES

4.1 Introduction

In this chapter, I look at what the negativity contained in comparatives suggests about NegMCs and RCs in English, and more importantly, how it contributes to the 'THAN or NOT' debate surrounding the comparative.

As such, the structure of this chapter is as the following: Section 4.2 provides a literature review on the 'THAN or NOT' debate and the NPI-containing comparative puzzle and relevant approaches currently available in the literature.

In Section 4.3, I propose a Logic Convertibility Analysis for comparatives. I show that a comparative $(\mathbf{d_1 > d_2})$ is logically equivalent to $\mathbf{NOT}$ $(\mathbf{d_2 > d_1})$, with d_1 and d_2 being the maximal degrees of the two entities or propositional attitudes in comparison. That is, a comparative utterance can be converted to the negation of the flipped inequality relation. This, along with one of the following necessary conditions in i) a *than*-proposition containing NPIs; and/or ii) a *more*-proposition with low likelihood, helps to make a negative inference available to the hearer.

In Section 4.4, I attempt an update on the understanding of the metalinguistic use of the comparatives in English. I propose that comparatives used metalinguistically are those that contrast two propositions to convey an evaluative attitude towards both the propositions.

Section 4.5 explores the potential pragmatic ambiguity resided in English comparatives. I show that English comparatives are pragmatically ambiguous in that they descriptively denote an inequality relation, but pragmatically can be used simultaneously to convey a subjective evaluative attitude. Crucially, MC instances can have a descriptive interpretation, i.e., a degree-differential reading.

Section 4.6 concludes the chapter.

4.2 Issues surrounding comparatives

Comparatives as a complex linguistic phenomenon have received much attention from linguists due to the debate and puzzles they create. In this section, I provide a brief review on some semantic approaches relevant to two relating issues surrounding comparatives, i.e., the THAN or NOT debate, the puzzle of NPI-containing comparatives, and the parallel grouping mechanisms of comparatives. In showing the potential issues in the relevant semantic approaches currently available, I propose independently a Convertibility analysis.

4.2.1 The THAN or NOT Debate

One among many debates surrounding comparatives is whether there is an inequality operator ($>$: Von Stechow 1984; Rullmann 1995; Kennedy 1997; Beck et al. 2004) or a negative operator ($\neg$) encoded in the standard *than*-clause (Jespersen 1917; Ross 1969; McConnell-Ginet 1973; Seuren 1973; Klein 1980; Stassen 1984; Larson 1988), shortened as 'THAN or NOT' debate in this work.

The Inequality analysis treats comparatives as an inequality operator, rendering an ordering relation between two maximal degrees (von Stechow 1984; Rullmann 1995; Kennedy 1999). Take for instance a comparative in (16), it receives a semantics shown in (17), interpreted as the maximal degree that John is tall to, d', is larger than the maximal degree that Mary is tall to, d''.

(1)   John is taller than Mary.

(2) $max\ \{d'\,|\,\text{tall}(john) \geq d'\} > max\ \{d''\,|\,\text{tall}(mary) \geq d''\}$

Another approach is motivated by the observations that in some languages comparatives use 'nor' or some negative element instead of 'than', as in (1), or they allow negative elements in the 'than' clause, as shown in (2) and (3) (Joly 1967; Seuren 1973; Yoon 2011), leading to the Negative approach (Jespersen 1917; Ross 1969; McConnell-Ginet 1973; Seuren 1973; Klein 1980; Stassen 1984; Larson 1988),

(3)   He is richer **nor** you'll *ever* be.   [Scottish and Irish English]

(4)   Jean   est   plus   grand   que   je   **ne**   pensais.   [French]
        Jean   is   taller   than   1SG   neg   thought
        'Jean is taller than I thought'.

(5)   She did a better job than what I **never** thought she would.   [Cockney English]

One semantic account proposed to support the Negative analysis is Ross's (1969) deep structural analysis in (4), which posits that there exists a degree *d* that John is tall to *and* it is not true that anyone else is tall to this degree *d*. Hence, by saying 'John is taller than anyone' it is to say 'no one is as tall as John is.'

(6)   John is taller than anyone.   (Ross 1969)

        ∃*d* John is tall to extend *d* AND **NOT** [anyone else is ~~tall to extend *d*~~]

While the Inequality analysis is adopted by semanticists, comparatives that allow Negative Polarity Items (NPIs) like *anyone* in (4) are not without significance since they pose a challenge on NPI licensing theory, which I will review in what follows.

4.2.2 The puzzle of NPI-containing comparatives

Negative Polarity Items (NPIs) are a class of linguistic items in natural language, such as *either* in (7), that are initially observed to be predominantly distributed in negative environment. As such, the preliminary research on NPIs is that they need to be licensed in negative environment (Ladusaw 1979; Giannakidou 1997).

(7)   I cannot do this, either.

However, due to the broadness of this class and the great variation observed crosslinguistically, the property of the environment these items are distributed in has been expanded through years of research from negation to Nonveridicality (Giannakidou 1998, 1999, 2001, 2006; Zwarts 1995, 1998; Hoeksema 1999; Bernardi 2002).
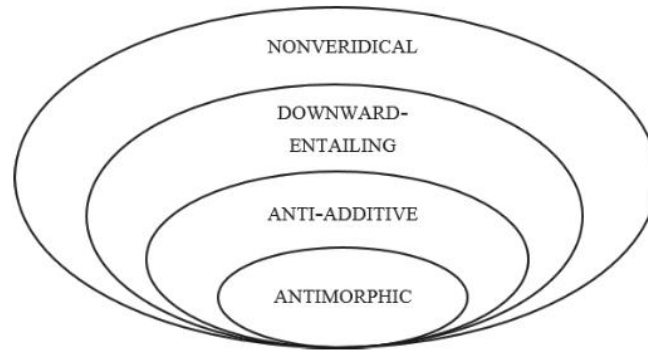

Figure 1. The nonveridicality hierarchy of polarity items

As shown in Figure 1, nonveridicality includes not only negative environments created via either Antimorphic *not* or the Anti-additive, such as *nobody*, but also the Downward Entailing (DE) environment, like one created by *few* (Ladusaw 1980; Zwarts 1998), and non-veridical environments that indicate a lack of certainty on the commitment to the truth, such as modals, questions, imperatives, and the protasis of conditionals, etc. (Giannakidou 1998, 1999, 2001, 2006; Zwarts 1995; Bernardi 2002). As such, the NPI Licensing theory posits that NPIs need to be licensed by nonveridicality.

What is puzzling is that comparatives allow NPIs, as shown in earlier examples (1), (2), (3) and (4), but whether comparatives create an environment falls under nonveridically is

controversial (Larson 1988; Schwarzschild and Wilkinson 2002; Rullmann 1995; Hendriks 1995; Heim 2006).

The current available solution to this is the NPI Rescuing theory as shown in (8) (Giannakidou 1998, 1999, 2006), which legitimizes NPIs in comparatives via a non-veridical environment made available by the global context of the sentence via an indirectly licensing, or *rescuing,* mechanism. Specifically, a comparative in (8) allows *anyone,* an NPI, because it implicates that 'no one expected Roxy to run this fast', as shown in (9) (Giannakidou 1998, p.152, ex(147)).

(8)   Roxy ran faster than **anyone** had expected.

(9)   a.   Roxy run g fast.

        b. k is the greatest degree such that people expected Roxy to run k fast.

        c. $\neg$ [people expected Roxy to run g fast]

NPI Rescuing works effectively for legitimizes NPIs' presence in comparatives, however, I will show in Section 4.3, where I propose a Convertibility analysis for comparatives, the root force of the non-veridical or negative environment created by a comparative instance lie in itself instead of the global context.

4.2.3 The parallel grouping of comparatives

Another issue surrounding comparatives is that there are two parallel grouping mechanisms proposed for comparatives. One distinguishes DCs and MCs in terms of the subjective attitude conveyed by MCs (Giannakidou and Yoon 2011; See Chapter 2 for detailed analysis), and the other divides comparatives into DCs and Rhetorical Comparatives (RCs) in that RCs contain NPIs and convey negativity in 'than' clause, hence a Split analysis (Yoon 2011).

Under this analysis, RCs convey a rhetorical flavor via NPIs and contain a negative implicature in the 'than' clause and a presupposition of a large difference, as shown in (10) and (11).

(10)   Jack is richer than you'*ll ever* be.

      i)   Negative implicature: You will never be as rich as Jack.

      ii)   Large difference presupposition: There is a significant large difference in the degree of wealth between Jack and you in any foreseeable future.

(11)   Jack does volunteer works more often than he *lifts a finger* to help his wife.

      i)   Negative implicature: Jack very rarely (or never) lifts a finger to help his wife.

      ii)   Large difference presupposition: There is a significantly large difference in frequency between Jack doing volunteer works and him helping his wife.

This Split Analysis, while capturing the conditioned nature of the negativity, i.e., conveyed by RCs but absent in DCs, leaves unaccounted for the negativity observed in NegMCs, as shown in (12). [15]

(12)   I would rather die than marry you.

I will show later in Section 4.4 that based on the analysis put forward in Chapter 3 NegMC and RCs seem to overlap in that the inequality relation or the degree-differential comparison observed in DCs is lost to a contrastive comparison for the sake of the negativity conveyed towards the *than*-clause.

4.2.4 Concluding remarks

In this section, I reviewed several semantic accounts for comparatives centered on the "THAN or NOT" debate and the puzzle of NPI-containing comparatives. Two sides of the debate are the Negative approach, which argues for an underlying syntactic negative operator "¬" contained in the comparative, evidenced by NPIs' presence in 'than' clause, and the Inequality approach, which posits that comparatives contain an inequality operator ">" and render an inequality relation. While the Inequality is adopted by many semanticists, comparatives containing NPIs are still puzzling in that they allow NPIs but lack non-veridicality posited in NPI Licensing theory. NPI Rescuing approach addresses this issue by considering any

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[15] Three reasons presented in Yoon (2011) for arguing RCs and MCs are distinct subtypes are based on syntactic differences. They are, i) the synthetic *-er* in RCs but not in MCs, ii) the floating 'more' in RCs but not in MCs, and iii) the gradeability of the adjectival predicates in RCs but not in MCs. However, on the meaning level, NegMCs do seem to share the negativity containing 'than' clause with RCs.

non-veridical environment made available by that the global context of a sentence. The Split analysis divides comparatives into RCs that convey negativity via NPIs and DCs that do not. All four semantic approaches reviewed in this section do not seem to tackle what is core in the semantics of comparatives, as the Logic Convertibility Analysis does, which I will discuss in the next section.

4.3 The Logic Convertibility Analysis

In this section, I propose the Logic Convertibility Analysis for comparatives, illustrating that the inequality relation marked by comparatives is logically equivalent to the negation of the flipped inequality relation. That is, if $(d_1 > d_2)$ is true, it follows that NOT $(d_2 > d_1)$ is also true. This inherent property of comparatives, as I will show, is of importance in generating a negative inference, which sets up a type of pragmatic interpretation. I then discuss conditions under which this conversion occurs. I show that at least two features will make the conversion occur: i) a *than*-clause containing NPIs; and/or ii), a *more*-clause of low likelihood.

4.3.1 The logic equivalence between a comparative and a negation

The Logic Convertibility analysis I propose here depicts the inherent property of the comparative to be converted to the negation of the flipped inequality relation. As shown in (13), there are two ways to represent this.

(13)   a.   A $(d_1 > d_2)$ $\Leftrightarrow$ **NOT** A $(d_2 > d_1)$ OR

b.   A $(d_1 > d_2)$ ⇔ **NOT** A $(d_1 < d_2)$

where d_1 and d_2 are the maximal degrees of the target and of the standard, respectively, on some dimension denoted by predicate **A**, and **'>'**, a 'greater than' relation.

Note that while both (13a) and (13b) hold true on the logic level, they slightly differ from each other in terms of their translation into natural languages. Specifically, the inequality operator '>' is translated as a "greater than" relation on some dimension, for instance, *taller than* on the scale of height. By contrast, the '<' inequality operator can be interpreted in two ways: *not as tall as* or *shorter than.* The issue resulted by this is that (13b) is either made into a logic circular reasoning shown in (14a), or it changes the predicate to its antonym, as shown in (14b).

(14)   a. $(d_1$ taller than d_2) ⇔ NOT $(d_1$ not as tall as d_2),   OR

         b. $(d_1$ taller than d_2) ⇔ NOT $(d_1$ shorter than d_2)

The translation of (13a) and (13b) into natural language is shown in examples of (15) and (16), respectively.

(15)   a.   John is taller than Mary.   ⇔

         b.   **NOT** (Mary is taller than John.)

(16)   a.   John is taller than Mary.   ⇔

         b.   **NOT** (John is shorter than Mary.)

The entailment in (15), or in (13a), is more convenient for the discussion here since it keeps the predicate constant.

As such, 'a reversed inequality/ordering relation' in this paper refers to a swapped position of the target and the standard with the inequality operator kept intact. With the adjective predicate remaining constant, our attention is guided towards the negation derived from the inequality operator, rather than the conversion between the antonymous pair of an adjective. For the same reason, I simplify the Logic Convertibility Analysis by omitting the adjective or adverb predicate A associated with the dimension, which helps us to focus on the conversion between the comparative and the negation, as shown in (17).

(17) $(d_1 > d_2) \Leftrightarrow \textbf{NOT } (d_2 > d_1)$

where d_1 and d_2 are to represent the maximal degree of the target and of the standard, respectively, on some dimension denoted by predicate A, and '>', a 'greater than' relation.

The Logic Coverability analysis suggests that an instance of a comparative can be converted to a negation of the flipped inequality relation. However, this conversion does not just occur automatically. I will show in next section conditions needed for this conversion.

4.3.2 Conditions for the conversion to occur

The Logic Convertibility Analysis discussed in the previous section states that an instance of the comparative can be converted to the negation of the flipped inequality relation.

However, this conversion does not seem to be automatic or autonomic. Rather, the conversion occurs under certain conditions. In this current section, I propose that conditions needed for this conversion include, but may not be limited to, the following: i) an NPI-containing *than* clause, and/or ii) a 'low likely' *more* clause, which can be commonsensically deemed dispreferred or unlikely.

4.3.2.1 'Than'-clause containing NPIs

The first type of condition for the conversion to occur is a *than* clause containing NPIs, as shown in (18) and (19).

(18)   a.   Jack is taller than *anybody else* (is).

   b.   NOT (anybody else is taller than Jack)

(19)   a.   Jack is richer than you'*ll ever* be.

   b.   NOT (you'll ever be richer than Jack)

4.3.2.2 'More' clause with a low likelihood sense

The conversion also occurs when the *more*-clause contains a 'low likelihood' sense. As shown in (20), the *more*-clause, *I fight,* is commonsensically deemed as dispreferred, or unlikely to be preferred.

(20)   a.   I would rather fight than quit.

        b.   NOT (I would prefer quit more than I would prefer fight)

        A side note here is that (20a) is an instance of NegMCs (See Chapter 2 for detailed discussion). This is not to say the English construction *would rather … than …* marks a NegMC construction, but that it does have the power to construct one when the predicate taken by *would rather* is of low likelihood. A quick search on the pattern "rather VERB+ than" in the Corpus of Contemporary American English (COCA; Davies 2008) shows that verbs on top of the frequency list include *die(d), fight, starve,* and *lose,* adding up to 421 out of the 835 total instances. Lower on the frequency list are verbs such as *kill, rot, perish, diminished, crash, freeze, suffer, sink, drown, steal, destroy,* etc., which are deemed negative due to reasons summarized in Table 1 shown below.

Negativity contained	Verbs
undesired events	*die(d), starve, lose, freeze, suffer, perish, crash, rot, struggle, wreck, sink, drown, diminished, shiver,* etc.
obligation or duties	*work, pay, study, wait,* etc.
aggressive or frowned upon actions	*fight, drink, kill, lie, hinder, spit, whine, sulk, tinker, bitch, blame, break, argue, arrest, complain, condemn, hit, hurt, implode, incarcerate, overact, pity, poison, self-destruct, retaliate, secede, destroy, dictate, curse,* etc.
actions of forgo	*quit, leave, secede,* etc.
negative emotive verbs	*hate, dislike, implode, deny, criticize, cry,* etc.

Table 1. Categorization of Negativity Containing Verbs in "rather VERB+ than" in COCA

This serves as a piece of evidence that when the 'more' clause contains propositional content with low likelihood, the negativity contained in 'than' gets conveyed, a point I will return in discussing the potential overlapping between NegMCs and RCs in Section 4.4.1.

4.3.2.3 The copresence of both conditions

When both of the conditions discussed above are present at the same time, a comparative instance also gets converted to its logically equivalent negative sentence. As shown in (21), the *than*-clause contains an NPI *budge an inch*, and the *more*-clause is one with low likelihood. Under the copresence of these two conditions, the conversion occurs immediately.

(21)   a.   The sky will fall sooner than Grace would *budge an inch*.

          b.   NOT (Grace would budge an inch sooner than the sky will fall)

Note, again for a sidetrack, two things here. First, the rhetorical flavor in (21) could be accounted for by the co-presence of *both* conditions with the currently analysis. Second, a 'more' clause with low likelihood sense does not have to be based on commonsensical knowledge. Instead, it can be a low likely sense evaluated by the speaker in the deontic level, as shown in (22).

(22)　　Jack helps other people more willingly than he pays *the least bit* of attention to his own

family.

Specifically, in (22), 'helping other people willingly' is not an unlikely event as the sky

falling example in (21), but it is evaluated not very likely to be high on the list of one's moral

obligations by the speaker. The analysis here also suggests that RCs also convey the speaker's

evaluative attitude, which leads to my point that RCs should be categorized under MCs in

Section 4.4.1.

4.3.3 Generation of a negative inference

4.3.3.1 The underlying negative force

The Logic Convertibility Analysis accounts for the source of the implied negativity that

can be conveyed via 'than' clause. Crucially, it is rooted in the entailment of a comparative. This

is borne out by the Ross's (1969) deep structure analysis, as shown in (23), but also an

improvement in that the current analysis specifies another necessary condition for this

conversion to sufficiently occur.

(23)　　John is taller than anyone.　　　　　　　　　　　　　　　　　　(Ross 1969)

$\exists d$ John is tall to extend d AND **NOT** [anyone else is ~~tall to extend d~~]

(24)　　a.　　　John is taller than anyone else.　　　　　　　　　　$\Leftrightarrow$

b.   NOT (anyone else is as tall as John).

It also explicates that the inequality relation inherent to the comparative is key to the generation of a negative inference. It finds the root source of the implied negativity *within* the semantics of comparatives, instead of in its global context as posited by NPI Rescuing (Giannakidou 1998, 2006). Giannakidou (1998, p.152, ex(147)) also mentioned in pass that it is the inequality relation that creates an environment for NPIs since equatives does not allow the Greek NPI *kanenas* 'any', as shown in (25).

(25)   *I Roxani   trexi   akrivos oso grigora   trexi   kanenas   stin taksi tis.

        Roxanne   runs   exactly   as   fast   runs   anybody   in   her   class

        ?? 'Roxanne runs as fast as anybody in her class.'

4.3.3.2 The role Pragmatics play

It is worth pointing out the implicated negative inference made available to the hearer is not based on semantics of comparatives depicted by this Logic Convertibility. Instead, it sets up a type of pragmatical interpretation via the conventional implicature of the comparative. Specifically, in (26), repeated from (21), the conversion from (a) to (b) is derived from the logic equivalence in comparatives. However, from (b) to (c), it is pragmatically implicated, indicated by '+>'.

(26)   a.   The sky will fall sooner than Grace would *budge an inch*.   ⇔

b.   NOT (Grace would budge an inch sooner than the sky will fall)   +>

c.   Grace will not budge an inch (since the sky is not likely to fall soon).

The implicatum here is one that is conventional, rather than conversational since it is non-truth conditional, and independent from the context. Additionally, the implicatum cannot be cancelled, as shown in (27), a property of conventional implicature (Levison 1983).

(27)   The sky will fall sooner than Grace would budge an inch. #In fact, she would run to open the TV if the football game is on.

The discussion here also contributes to the THAN or NOT debate by taking into consideration the role pragmatics plays. That is, whether the comparative is interpreted as an inequality operator or a negative operator is perhaps not a pure semantic or syntactic issue. Rather, the negativity is implied pragmatically via a conventional implicature of the comparative.

4.3.3.3 Concluding remarks

In this section, I discussed how a negative inference is made available from a comparative. I showed that a comparative instance bears an inherent property that allows a conversion to the negation of its flipped inequality relation, i.e., $(d_1 > d_2) \Leftrightarrow$ **NOT** $(d_2 > d_1)$. Hence, the Logic Convertibility Analysis was proposed for the comparatives. The conversion will sufficiently occur with two necessary conditions, one is the convertibility property of comparatives depicted by this Logic Convertibility Analysis, another being one of the following:

i) *than* containing NPIs, *and/or* ii) *more* containing a low likely proposition. The discussions here contribute to the "THAN or NOT" debate surrounding the comparatives from a semantico-pragmatic perspective. Specifically, the Logic Convertibility Analysis explicates the source of the underlined negative force in the semantics of the comparatives. The speaker, when driven pragmatically for a negativity conveyance effect, chooses to employ linguistic items such as NPIs, to make a negative inference readily accessible to the hearer.

4.4 An update on the metalinguistic use of comparatives

In this section, I propose an updated understanding on the metalinguistic use of comparatives, under which a comparative is used metalinguistically when it is to convey the speaker's evaluative attitude, rather than a pure description of an inequality relation, i.e., the descriptive use of the comparative. Under this understanding, the currently defined RCs falls into the category of MCs, rather than a subtype of DCs.

4.4.1 MCs and RCs revisited

MCs are currently defined as comparatives with the following features: those that take two propositions, rather than two entities, to convey a relativized subjective assessment on the appropriateness of two propositions, as shown in (28), or a (dis)preference towards *than*-propositional content, a NegMC, as shown in (29) (cf. detailed discussions in Chapter 2). While English does not present a distinct NegMC lexicalization as Korean and Mandarin Chinese do,

the construction *would rather … than* does show its capability to convey a strong negativity

towards *than*-proposition, as shown in (29) (cf. discussion of corpus data in Section 4.3.2.2).

(28)   Paul is more clever than industrious.

(29)   I would rather die than marry you.

RCs, on the other hand, are currently categorized as a subtype of Degree Comparatives

(DCs) in that it is a degree comparison denoted by the adjective despite of the rhetorical flavor

conveyed, as shown in (30) and (31).

(30)   John is taller than anyone else.

(31)   Jack would waste money on gambling more happily than he'd *give a penny* to the charity.

The criterion used to group RCs as a subtype of DCs does not seem to be valid since MCs

also render a degree comparison. Specifically, (28), albeit being defined as MC, cannot be denied

of the inequality relation denoted by the comparative there. In other words, (28) can also be

interpreted as 'the degree of Paul being clever is greater than the degree of Paul being

industrious', which is evidenced by the two possible equivalents realized by MC-than *and* DC-

than in both Greek (Giannakidou and Stavrou 2009; Giannakidou and Yoon 2011) and Mandarin

Chinese, as shown in (32) and (33), respectively.

(32)   a.   o Pavlos   ine   perissotero/pjo   poli eksipnos **apoti**   erghatikos. [Greek]

the Paul   is-3s   more   clever   DC-than   industrious

'Paul is more clever than industrious.'

b.   o Pavlos   ine   perissotero/pjo   poli eksipnos **para**   erghatikos. [Greek]

the Paul   is-3s   more   clever   MC-than   industrious

'Paul is clever more than industrious.'

(Roughly equivalent to: Paul is clever rather than industrious.)

(33)   a.   Băoluó   cōngmīng   de   chéngdù   **bǐ**   tā   [Chinese]

Paul   clever   NOM   degree   DC-than   3S

yònggōng   de   chéngdú   dà.

industrious   NOM   degree   great

'The degree Paul is clever to is greater than the degree he is industrious to.'

(Paul is more clever than industrious.)

b.   **yǔqí**   shuō   Băoluó   yònggōng, **bùrú**   shuō   tā   cōngmíng. [Chinese]

MC-than say   Paul   industrious MC-more say   3SG clever

'Rather than to say that Paul is clever, it is better to say he is industrious.'

(Roughly equivalent to: Paul is clever rather than industrious.)

In addition, the prominent feature in RCs, as shown in (30) and (31), seems to be one similar to the NegMCs in that the comparison made here, between the *more*-clause and the *than*-

clause, is one of a contrast rather than an inequality relation. Additionally, the discussion in Section 4.3.2.3 shows that RCs also convey an evaluative attitude. Based on these, I propose an update on the understanding on the metalinguistic use of comparatives in next section.

4.4.2 Revised definition for MCs

The discussion in Section 4.4.1 advises a revised definition of metalinguistic comparatives, under which a comparative is used metalinguistically when the comparison made is based on a contrastive evaluative attitude instead of a degree-differential based ordering relation. As shown in (34a), a descriptive use of a comparative marks an inequality relation based on a degree difference. In contrast, (34b) has a metalinguistic reading in that it conveys the speaker's contrastive evaluative attitude towards two propositions.

(34) a.   Your problems are more serious than mine.   [descriptive use]

      b.   Your problems are financial rather than legal.   [metalinguistic use]

Two consequences follow this revised understanding of the metalinguistic use of the comparative. First, RCs are treated as a close relative to NegMCs instead of DCs in that degree-differential ordering relation contained in the comparative gives way to the contrastive comparison, via which negativity is conveyed towards the 'than' clause. Second, this unifies non-NegMCs, NegMCs and RCs in the level of a contrastive evaluative attitude conveyed, with the difference being the strength of the negativity, subtle in non-NegMCs, strong and/or in NegMCs and RCs.

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Admittedly, the revision does not take into consideration the syntactic features of RCs, DCs, or MCs as defined in the literature. However, due to the complexity of the behavior of the English comparative, it is a job that requires further research. In addition, the current categorizations based on the structural features is not without flaw. For instance, instances of RC in (35) and (36) do not seem to have two entities or propositions, nor does it make the comparison along any scale denoted by a gradable predicate, both of which are reason for RCs to be categorized as a subtype of DCs.

(35)   This work is more than I can *stand*.

(36)   Grace's chicken was more than I could be *bothered* eating.

4.4.3 Concluding remarks

In this section, I proposed an updated understanding of metalinguistic use of comparatives. I showed that a comparative is used metalinguistically when it is to convey a contrastive evaluative attitude rather than depict a degree-differential ordering relation. However, comparatives in English can be ambiguous in that a comparative used descriptively can be used metalinguistically simultaneously, a point I will make in the next section.

4.5 Pragmatic ambiguity of English comparative

In this section, I attempt an exploration on the potential pragmatic ambiguity of comparatives in English. I show that a degree-differential comparison, i.e., a comparative used

descriptively, can *simultaneously* be used metalinguistically to convey the speaker's evaluative attitude.

4.5.1 Vagueness of the adjectives

While a typical instance of the descriptive use of the comparative, as shown in (37), depicts an inequality relation on some dimension, for instance, that of height, it does not entail 'John is tall', or 'Mary is tall', but purely an inequality relation between the maximal heights of John and Mary, both of whom have some heights.

(37)   John is taller than Mary.

This is a resulted by the vagueness of the truth value of a proposition '*x is ϕ*' with *ϕ* being the gradable adjectives, a feature observed in gradable adjectives (Sapir 1944; McConnell-Ginet 1973; Kamp 1975; Klein 1980, 1982, 1991; Ludlow 1989; van Benthem 1983; Larson 1988; Sánchez-Valencia 1994). A consequence of this is that (37) can have the following three possible readings shown in (38).

(38)   a.   Both John and Mary are tall, and John is taller than Mary.

        b.   Both John and Mary are short, and John is taller than Mary.

        c.   John is tall, Mary is short, and John is taller than Mary.

Crucially, this empowers the speaker with the freedom to convey a range of possible meanings via a descriptive inequality relation at the Logic Form. For instance, in a context where an utterance is made as (39a), a comparative in (39b) can be understood as a way to deny (39a) without using an overt negation. This can be understood as an evaluative attitude of the speaker in the epistemic level.

(39)   a.   Mary is the tallest person I have ever met.

        b.   John is taller than Mary.

4.5.2 Target or standard carrying end-of-scale value

A descriptive use of comparatives at the Logic Form can convey beyond an ordering relation when they contain a target or a standard with end-of-scale value. As I show in (40) and (41), they seem to mean more than just a *taller than* relation.

(40)   John is taller than Yaoming.

(41)   Wu Dalang is taller than Mary.

In (40), the standard Yaoming, a former Chinese NBA player, supposedly the tallest man known in China, renders the sentence a meaning that 'John is extremely tall'. Similarly, a target that is known or deemed as short, such as Wu Dalang, a fictional character known as a dwarf in a Chinese novel in (41), produces a meaning that 'Mary is not tall at all'.

4.5.3 MCs interpreted descriptively

Another good example would be (42), a typical instance of MC that can be interpreted descriptively.

(42)   Paul is more clever than industrious.

This is shown in the divergence of the judgment by English native speakers. Some judge (42) is interpreted descriptively as 'the degree to which Paul is clever is greater than the degree to which Paul is industrious', but others judge it indicates a metalinguistic interpretation of 'Paul is clever but not so industrious.'

Similarly, (43), an instance of RC defined in the literature, is constructed on the ordering relation denoted by the adjectival predicate.

(43)   Jack helps other people more willingly than he pays *the least bit* of attention to his own
        family.

4.5.4 Concluding remarks

In this section, I discussed three reasons to show the potential pragmatic ambiguity in English comparatives. Specifically, first, the vagueness of the gradable adjectives grants the speaker freedom to convey a set of possible meanings. Second, comparatives contain targets or

standards that carry end-of-scale value can convey a meaning beyond a pure inequality ordering relation. Third, comparatives with metalinguistic reading are, to the nature, still comparisons made based on some sort of degree-difference.

All these factors, as well as the single lexicalization for comparatives in English, make the comparative a complex topic. My goal here in this section is not to undo what the literature has revealed about comparatives. Rather, it is to draw the attention to the pragmatic ambiguity that resides in comparatives. That is, comparatives in English, while denoting an ordering relation on some dimension descriptively, can simultaneously have a metalinguistic interpretation to convey the speaker's evaluative attitude towards *either* the target *or* the standard.

4.6 Summary

In this chapter, I proposed a Logic Convertibility analysis for comparatives, illustrating that an inequality relation can be logically converted to the negation of the flipped ordering relation. That is, $(d_1 > d_2) \Leftrightarrow$ NOT $(d_2 > d_1)$. This explicates one important necessary condition for a 'than' clause to convey the negativity. Another set of necessary conditions for this conversion to sufficiently occur include: i) 'than'-clause containing NPIs, and/or ii) 'more'-clause with a low likelihood sense. This conversion sets up a pragmatic interpretation in that the negative inference made available to the hearer is via the conventional implicature of comparatives. The analyses could shed some light on the THAN or NOT debate surrounding comparatives in that it considers pragmatic's role in generating a negative sentence from a comparative.

Further, I attempted an updated understanding on the metalinguistic use of comparatives. I showed that a comparative produces a metalinguistic reading when it is used to convey a contrastive evaluative attitude towards clauses embedded rather than to describe a degree-differential comparison. As such, the metalinguistic use of comparatives includes what the literature has defined as MCs, NegMCs, and RCs.

An exploration of the potential pragmatic ambiguity in English comparatives suggested that a comparative descriptively marking a degree-differential comparison can also be simultaneously used metalinguistically, i.e., to convey an evaluative attitude. Crucially, this allows two readings of the stereotypical MC instance 'Your problems are more financial than legal'. That is, it can be interpreted *either* as 'The degree to which your problems are financial is greater than the degree to which your problems are legal' *or* 'Your problems are financial but not so legal'. This not only explains why there are two different interpretations judged by English native speakers, but also accounts for the crosslinguistic variation in whether this instance can be conveyed by a DC marker.

CHAPTER 5

CONCLUSION

In examining a group of Metalinguistic Comparative (MC) constructions in Mandarin Chinese, this dissertation has taken a semantico-pragmatic approach on this topic, suggesting that Chinese MCs encode subjective attitudes with different orientation and strength and can be used as pragmatical devices for speakers to reject or rectify an utterance. An additional suggestion from the discussion in this work is that English comparatives are pragmatically ambiguous in that they descriptively encode an inequality relation but can be used metalinguistically for speakers to convey their evaluative attitude on an epistemic, bouletic, or doxastic level towards either clause.

There are several contributions this work adds to the discussion surrounding comparatives. I highlight them below.

First, the analysis on Chinese MC data further substantiates two aspects of the current semantic theory on MCs: i) they differ from the truth value semantics in that the judgement made on the appropriateness of the proposition is irrelevant to the truth value of the proposition; and ii) MCs encode an emotional element that can be captured in the expressive dimension (Giannakidou and Stavrou 2009; Giannakidou and Yoon 2011). MCs in Chinese are illuminating in that the two MC-THAN markers, *yǔqí* and *yěbù,* both contain a negative expressive element but differ in strength, the former is subtle while the later strong. The two MC-MORE markers, *bùrú* and *nìngkě,* both have a descriptive meaning of 'prefer' but the former marks a positive emotive stance and the latter negative.

Second, following Giannakidou and Yoon (2011), I employ Expressive Index (EI) system (Potts 2007) to capture the fine-grained scalarity of the array of subjective attitudes Chinese MCs convey. Crucially, I propose to include *both* propositions in the same EI to illustrate the relativized attitudes encoded in MCs.

Third, I suggest a potential connection between MCs and another metalinguistic phenomenon, Metalinguistic Negation (MN). I show that while MNs are used to deny an utterance (Horn 1989), MCs in English convey a rejection without using negation. This could shed some light on the universal of MCs.

Fourth, in examining *yěbù,* the same lexicalization in both Chinese NegMC and RCs, I point out a possible overlapping between NegMCs and RCs, which regroups RCs under comparatives used metalinguistically, rather than a subtype of DCs, opposed to what is posited in the split analysis (Yoon 2011). As such, I advise an updated understanding of the metalinguistic uses of comparatives. I show that comparatives used metalinguistically contrast two propositions and convey a negative evaluative attitude towards 'than' clause embedded, whereas descriptive comparatives denote a pure degree-differential inequality relation.

Fifth, I proposed an independent Logic Convertibility analysis to reveal the underlying negative force contained in comparatives, which depicts the property inherent to comparatives. Specifically, a comparative is logically equivalent to the negation of the flipped inequality relation, i.e., $(d_1 > d_2) \Leftrightarrow$ **NOT** $(d_2 > d_1)$, with d_1 and d_2 being the maximal degrees of the two entities or the propositional attitude in comparison. While the implied negative inference in NegMCs and RCs is not a direct result of this feature of comparatives, the logic conversion is one important step in the process of generating the negative inference. This analysis could contribute to the THAN or NOT debate surrounding comparatives. That is, whether there exists

an inequality operator or a syntactic negative operator in the standard *than*-clause (Jespersen 1917; Ross 1969; McConnell-Ginet 1973; Seuren 1973; Klein 1980; Stassen 1984; Larson 1988) perhaps is not a pure semantic or syntactic topic. Instead, the role Pragmatics plays needs to be considered to fully address this debate.

Finally, another bold but important suggestion I have drawn from the analysis in this work is that comparatives in English are pragmatically ambiguous. I show a seemingly degree-differential comparison, i.e., comparative used descriptively, can simultaneously produces a metalinguistic reading. More importantly, the stereotypical MC instance 'Your problems are more financial than legal' can be interpreted as the comparison between the degrees to which your problems are financial and the degree to which your problems are legal, or a subjective evaluative attitude towards the propositions.

This work invites more crosslinguistic comparative data to testify and refine the claims made here. Future work could also research on how Chinese contributes to the discussion of *even,* MNs, and NPIs, etc.

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