國 立 交 通 大 學

外國文學與語言學研究所

碩 士 論 文

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以「也」、「而且」及「和」為例

Additive Adverbs and Coordinators in Chinese:

A Case Study of *Ye* 'also', *Erqie* 'and' and *He* 'and'

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摘要

　　此篇論文主要探討兩個議題：(一)中文的附加副詞「也」；(二)中文的兩個連接詞：「而且」與「和」。本論文首先以三點理由論證「也」在句法上是一個副詞，第一：中文可藉零連接詞(zero coordinator)來連接兩個子句或片語；第二：「也」可出現在單一子句中；第三：「也」可與連接詞「並且」或附屬連接詞「因為」共現。至於「也」的語意分析，本文以 Rooth (1985, 1992, 1997)的「另類語意學」(alternative semantics)為基礎，將「也」分析為「附加」副詞，其語意為：預設「另類集合」(alternative set)中至少有一元素(member)為真。此分析解釋「也」可出現於以下句型，但是「而且」卻要在特定條件下才可以：「什麼…都」句子之前；兩個語義相反的謂語；以及「是」字句。

　　本文以呂叔湘(1980)對「而且」的分析為出發點，提出「而且」的語意分析與「訊息資訊」(informativity)相關，並且要求其所連接的兩個述語必須屬於同極(same polar)；此分析從以下句型「A 而且 B」的特性得到證明：B 蘊含 A；B 所承載的訊息量多於 A；以及 B 常常帶有「也」、「還」等副詞。(請參閱 BarHillel and Carna (1952), Popper (1959))。

　　接著，由於呂叔相(1980)與朱德熙(1982)觀察「和」除了可連接名詞片語外，亦可連接動詞及形容詞片語，因此本文認為「和」所連接的是「論元」而非「名詞性片語」；此「論元」或為一階述語的論元；或為高階述語的論元。

　　最後，從中英比較得知以下結論：中文「也」的語意與英文 'too' 或 'also' 的語意相同；然而，中文「而且」的語意與英文 'and' 有很大的不同。

Abstract

This thesis studies two topics: (I) an additive adverb *ye* 'also'; (II) two coordinators *erqie* 'and' and *he* 'and', which conjoin different types of conjuncts. We shall first argue that syntactically *ye* behaves as an adverb in the coordinated construction; semantically *ye* presupposes that there is at least one contextually salient expression P that is distinct from the sentence with *ye* is true (cf. Rooth (1985, 1992, 1997), Rullmann (2003), Tsai (2004)).

Second, we shall argue that syntactically *erqie* can conjoin clauses and phrases (except NPs); semantically *erqie* presupposes informativeness, and requires its conjuncts to be the same polar (cf. BarHillel and Carna (1952), Popper (1959)).

Third, we suggest that the idea that *he* conjoins nominal expressions be challenged by linguistic data observed by Lu (1980) and Zhu (1982). Thus, we propose that syntactically *he* conjoin arguments of either first-order predicate or higher-order predicate.

Crosslinguistically, the English counterpart of *ye* is *too/also*, whereas, the properties of *erqie* are not parallel to those of *and*.

Acknowledgement

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Chapter 1

Introduction

This thesis deals with two topics: (I) an adverb *ye*; (II) two coordinators *erqie* 'and' and *he* 'and'.[1, 2]   We shall first argue that syntactically *ye* behaves as an adverb in the coordinated construction by the following three reasons: (A) Chinese allows a zero coordinator; (B) *ye* can occur in a single sentence; and (C) *ye* can co-occur with a coordinator or a subordinator.   Semantically, *ye* presupposes that there is at least one contextually salient expression P that is distinct from the sentence with *ye* is true. Assuming this analysis, we are able to represent and define the interpretation of *ye* formally and to provide well explanations for the following characteristics of *ye*: (A) when a modal occur in the coordinated structure, it has to occur in both conjuncts as in (1); (B) *ye* rather than *erqie* precedes the *wh…dou* construction as in (2); (C) *ye* instead of *erqie* appears in sentences with two contradictory conjuncts as in (3); and (D) *ye* can occur in *shi* 'be' clauses, but *erqie* can not unless followed by certain

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[1] The gloss is as follows: *erqie*: 'and'; *ye*: 'also'; *he* : 'and'; and *hai*: 'even' or 'still'.
Abbreviations used in this thesis are as follows: ASP: aspect markers; CL: classifiers; DE: verbal suffix or marker for modifying phrases like genitive phrases, relative clauses, and noun complement clauses; BEI: passive marker; BA: the disposal marker, and SFP: sentence-final particles.

[2] According to Zhu (1982), Tseng (1977), and Aoun and Li (2003), different categories of conjuncts are conjoined by difference coordinators in Chinese.

adverbs, as shown in (4).[3]

(1) Dang   yisheng de yao xiaoxin, yi-tie   yiao   neng   jiu
    As   doctor DE need careful, one-CL medicine can   save

    ren   de ming, ye   *(neng) hai   ren   de ming.
    people De ming, also   can   harm   people DE life

    'As a doctor, you should be careful, the medicine can save one's life, and it can

    also take away one's life.'

(2) Wo jiao-guo   hao   xuesheng,   ye/*erqie   jiao-guo   huai
    I teach-ASP   good   students   also/*and   teach-ASP   bad

    xuesheng,   shenmeyiang de xuesheng   wo dou   keyi
    students,   what kind   DE students   I all   can

    yingfu.
    handle

    'I have taught good students, and also taught bad students, I can handle all kinds

    of students.'

(3) Zhangsan   bu gao ye/*erqie   bu ai.
    Zhangsan   not tall also/*and   not short

    'Zhangsan is neither tall nor short.'

(4) Zhe   shi yizhang chuang ye/*erqie   shi yizhang shafa.
    This   is one-CL bed   also/*and   is one-CL sofa

    'This is a bed, and also a sofa.'

---

[3] *Erqie* can proceed the *wh…dou* construction, occur in *shi* 'be' clauses, conjoin two contradictory conjuncts, providing that it is followed by proper adverbs, such as *ye* 'also', *hai* 'even'.

Second, we shall argue that the interpretation of 'furthermore' denoted by *erqie* in effect derives from the semantic nature of *erqie*.   *Erqie* presupposes informativeness verified by the environments where *erqie* occurs: (A) in *p erqie q* construction, *q* entails *p*, as shown in (5); (B) the propositional strength of the conjunct following *erqie* must be stronger than the one preceding *erqie* in (6); and (C) the conjunct following *erqie* contains adverbs, such as *ye* 'also', *hai* 'even', as shown in (7)-(8).

(5) Muqian   feiji   yijing   bei   women   kongzhi   erqie   feixing

    Right now   airplane already   BEI   us   control   and   flight

    jihua   yijing   yiusuo   kengdong.

    plan   already   with   change

    'Right now the flight is already controlled by us, and the plan of the flight has
    already changed.'

(6) Baishang   you   san-shi-ge   ren   kao-shang   guoli-daxue

    class   have   thirty-Cl   people   pass   national-university

    erqie   di-er-leizu   de   bangshou   zai   wo-men   bang.

    and   second-group DE   the first   in   our   class

    'Thirty students in our class can enter the national universities, and furthermore
    the first of the second group is in our class. '

(7) Wo jiao-guo   hao xuesheng,   erqie   ye jiao-guo   huai

    I   teach-ASP   good-students   and   also teach-ASP   bad

    xuesheng,   (shenmeyiang de   xuesheng   wo   dou   keyi

    students   (what kind   DE   students   I   all   can

    yingfu).

    handle

'I have taught good students, and also taught bad students; (I can handle all kinds of students).'

(8) Wo ren-shi zhe-san-ge jiaoshou, erqie qizhong you liang-ge

I   know   this-three-CL professors and   among   with two-CL

*(hai) shi wo-de   zhidaolaoshi, (wo gen tamen   zai shou

even   is   my   adviser   (I   with them   again familiar

bu-guo).

not-over

not-enough familiar SFP

'I know these three professors, and two of them are even my advisers. I can not be more familiar with them.'

Significantly important here is that *erqie* requires its conjuncts to be the same polar as shown by the contrast between (9)-(10).

(9) Zhe-ke pingguo hen dai erqie   hen tian.

This-CL apple   very big and   very sweet

'This apple is very big and very sweet.'

(10) *Zhangsan   bu gao erqie   bu ai.

Zhangsan   not tall and   not short

'Zhangsan is neither tall nor short.'

Having looked at the characteristics of *ye* and *erqie*, we shall suggest that crosslinguistically, the English counterpart of *ye* is *too/also*, yet the characteristics of *erqie* do not match those of *and*.

Finally, we propose that *he* 'and' conjoin arguments of either first-order predicate or higher order predicate, instead of conjoining nominal expressions, as shown in (11)-(12), respectively.

(11) Zhe-zhi gou he na-zhi mao dou hen keai.

This-CL dog and that-CL cat both very cute

'This dog and that cat are both very cute.'

(12) Taishan de jingse *(shifen) zhuangli he xiongwei.

Taishan DE scenery very grandeur and majestic

'The scenery of Taishan is very grandeur and majestic.'

This thesis proceeds as follows: previous studies of characteristics of *ye* and *erqie* will be reviewed in Chapter Two, and then the proposal of the syntax and semantics of *ye* and *erqie* will be suggested in Chapter Three and Four, respectively. In Chapter Five, the properties of the conjuncts conjoined by *he* will be reexamined, and finally the conclusion will be reached in Chapter Six.

Chapter 2

Literature Review: Syntax and Semantics of *Ye* and *Erqie*

In this Chapter, the syntax and semantics of *erqie* and *ye* are reviewed in Section 2.1 to 2.4 (cf. Zhu (1982), Ma (1982), Shen (1983)), and then some problems that can not be solved by previous studies are brought out in Section 2.5.

2.1 Literature Review: Syntax of *Ye*

2.1.1 *Ye* as an adverb

According to Chao (1968), Zhu (1982), Li and Thompson (1981), *ye* is an adverb of scope that refers to the scope of the expressions before *ye*, as shown in (13). That is to say, in (13) *ye* is used to exclusively quantify over the subject *Zhangsan*. However, Paris (1979) notices that *ye* can have its scope either to the right or to the left as illustrated by the ambiguous interpretations of (13).

(13) Zhangsan   ye   chi-le   mian.

    Zhangsan   also eat-ASP noodles

    'Someone ate noodles, and Zhangsan also ate noodles.'

    'Zhangsan ate something, and he also ate noodles.'

2.1.2 *Ye* as a Coordinator

Li (1947), Tseng (1977) point out that *ye* is a coordinator conjoining non-nominal expressions, as shown in (14)-(20).

VP

(14) Zhangsan [VP qu-guo Meiguo],   ye [VP qu-guo   yingguo].

Zhangsan go-ASP America   also go-ASP   England

'Zhangsan has been to America, and has also been to England.'

ModP

(15) Zhe-ci   shi ni bu dui,   ni [ModP yinggai chengren cuowu]

This-time   is you not right   you   should   confess   mistakes

ye   [ModP yinggai]   daoqian.

also   should   apologize

'This time is your fault; you should admit that and also apologize.'

AdjP

(16) a. ?Biao mian[AdjP rouruan] ye [AdjP guanghua].[4]

b. Biao mian [AdjP hen rouruan] ye [AdjP hen   guanghua].

Surface area   very soft   also   very glory smooth

'The surface is very soft and also very smooth.'

(17) Ta [AdjP hen   congming] ye [AdjP hen   piaoliang].

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[4] A difference in degree of grammaticality between (16a) and (16b) can be explained by Liu's (2004) proposal: the insertion of a degree modifier like *hen* 'very' is a plausible strategy for Chinese, a language without grammatical tense, to provide the relative standard of comparison for gradable adjectives.

She   very   smart   also   very beautiful

'She is very smart and also very beautiful.'

AdvP

(18) Ta jihua-de [$_{AdvP}$ hen   zhouxiang]   ye [$_{AdvP}$ hen   yianmi].

He plan DE   very comprehensively   also   very   strictly

'He plans very comprehensively and strictly.'

CP

(19) [$_{CP}$ Zhangsan qu-guo   Meiguo], [$_{CP}$ Lisi   ye   qu-guo Meiguo].

Zhangsan go-ASP   America   Lisi also go-ASP America

'Zhangsan has been to America, and Lisi has also been to.'

(20) Ta   pao-de [$_{CP}$ hen   renzhen] ye   [$_{CP}$ hen   xiangshou].

He run DE   very   earnest   also   very enjoyable

'He runs with earnest and also with enjoyment.'

From the above sentences, one may regard *ye* as an adverbial conjunction that functions to conjoin and to modify phrases or clauses.[5]   Yet, this will lead to an expansion of the lexicon.   *Ye* will have two syntactic categories: on the one hand, it will be classified as an adverb when it appears in a single sentence, like (13); on the other hand, it will be an adverbial conjunction when it conjoins phrases or clauses, like (14)-(20).   In the following, we shall therefore suggest that a uniform analysis for the status of *ye* be preferred in Chapter Three.

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[5] Chao (1968) claims that except for a few prepositional conjunctions, most conjunctions are adverbial conjunctions that serve both to join and to modify words, phrases or clauses.

2.2 Literature Review: the Semantics of *Ye*

As for the interpretation of *ye*, Lu (1980) among many researchers classifies *ye* into four types: (I) *ye* signifies the existence of two things that are equivalent; (II) *ye* represents the situation that the outcome is consistent no matter the assumption is realized or not; (III) *ye* with the meaning of 'even' preceded by an overt *lian* 'even' often occurs in negative sentences; and (IV) *ye* marks the emphatic use that characterizes the tone of voice called roundabout, tactful.　These four types of uses are further characterized into subtypes, respectively, illustrated as follows.

I.　*ye* signifies the existence of two things that are equivalent

A.　juxtaposition of subject[6]

(21) a. Ni　　qu　Beijing　canguan-fangwen,　wo　ye　　qu　Beijing

　　　　You　go　Beijing　　visit　　　　　　I　　also　go　Beijing

　　　　canquan-fangwen.

---

[6] Ma (1982) argues that *ye* underscores the similarity between two expressions (i.e., NPs, VPs, CPs, etc.) not the relations of juxtaposition or coordination of them.　That is to say, the function of *ye* is to emphasize that the second clause is similar to the first.　Still, *ye* should be deleted, if two expressions have no likeness or though with similarities but no requirement for emphasis.　These facts are shown by (i)-(iii).

(i)　Ta　　chi-le　　yi-ke　　　pingguo,　wo　ye　chi-le　　yi-ke　　　pingguo.
　　　He　　eat-ASP　one-CL　　apple　　　I　　also　eat-ASP　one-CL　　apple
　　　'He ate an apple, and I also ate an apple.'
(ii)　Ta　　shi　laoshi,　　wo　shi　xuesheng.
　　　He　　is　teacher　　I　　am　student
　　　'He is a teacher, while I am a student.'
(iii) A: Nimen　　liang qu　　na-li?
　　　　You　　　two　go　　where
　　　　'Where did you two go?'
　　　B: Ta　qu　Meiguo;　wo　qu　Yingguo.
　　　　He　go　America　I　　go　England
　　　　'He went to America, while I went to England.'

Simply put, sentence (i) shows the fact that the verb phrase of the second clause is similar to that of the first clause.　In (ii), there is no similar element between two clauses, so *ye* is deleted.　Likewise, *ye* is deleted in (iiiB), when the answering sentence is just a statement rather than an emphasis.

visit

'You go visiting Beijing, and I also go visiting Beijing.'

    b. Lai   ye   keyi,   bu   lai   ye   keyi.[7]

      Come also all right   not come   also all right

      'You can either come or not come.'

B. juxtaposition of predicate[8]

(22) Zhangsan   da   bangqiu, ye ti   zuqiu.

     Zhangsan   hit   baseball also kick soccer

     'Zhangsan plays baseball, and also plays soccer.'

C. juxtaposition of adjunct

(23) Zhe-ge ren   zuotian lai-le,   jintian   ye lai-le.

     This-CL person   yesterday come-ASP   today   also come-ASP

     'This person came yesterday, and also came today.'
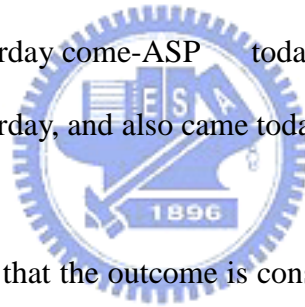
II. *ye* represents the situation that the outcome is consistent no matter the assumption

    is realized or not

A. *suiran* 'although' (*jishi* 'even if', *ningke* 'rather')… *ye* 'also'…

(24) Suiran   yijing   xia-yu-le,   zuqiusai   ye yao anshi

     Although   already fall-rain-ASP soccer-game also must on-time

     juxing.

---

[7] Lu (1980) points out that *ye* can occur in both clauses, or just in the latter clause. Besides, Biq (1989) also argues that this point discriminates Chinese *ye* from English *also*. For ease of exposition, we only focus on sentences with *ye* in the second clause.

[8] Lu (1980) observes that granted the identical subjects and verbs of two clauses, their objects can be preposed to the initial position, respectively, as shown by (i).
(i) Mantou   wo chi, mifan   wo   ye   chi.
    Steamed bun   I   eat   rice   I   also   eat
    'I eat steamed buns, and I also eat rice.'

hold

'Although it rains a lot, the soccer game still has to be held on time.'

(25) Jishi   ni   bu   suo, wo ye   hui zhidao.[9]

Even-if you not say I   also will know

'Even if you don't tell me, I will still know that.'

(26) Wo ningke   chidao, ye   bu yao   kai   kuaiche.

I   rather   late   also not want   drive   fast car

'I would rather be late to driving fast.'

B. the element preceding *ye* is nominal, with the interpretation of 'no matter …'[10]

(27) Shei   ye   bu shuohua,   yanjing dou ding-zhe heiban.

Who   also not say   eyes   all   fix-ASP blackboard

'Everyone says nothing, and they all fix their eyes on the blackboard.'

C. repetition of verbs preceding and following *ye* with the meaning of 'no matter

how…' or 'even if'

(28) Pao   ye   pao bu   dong.

Run   also run not move

'(No matter how hard you try to run), you cannot even move one step.'

(29) Ting   ye   mei ting   jinqu   ji-ju.

Listen also not listen   inside   some-CL

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[9] In *suiran* 'although' (*jishi* 'even if', *ningke* 'rather')… *ye* 'also' construction, the deletion of the coordinator, such as *suiran* 'although' (*jishi* 'even if', *ningke* 'rather') will not alter the interpretation of the sentence, as shown by (i) (cf. Lu (1980)).

(i) (Jishi)   ni   bu   suo, wo ye   hui zhidao.
     (Even-if)   you not say I   also will know
     '(Even if) you do not tell me, I would still know that.'

[10] Lu (1980) proposes that the meaning of 'no matter how…' can be expressed by certain adverb, such as *yongyuan* 'never' in (i).

(i) Ta   yongyuan ye   bu   zhidao   shenme   shi lei.
    He   never   also not know   what   is   tiredness
    '(No matter how long he has worked), he would never feel tired.'

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'(Even if) you listened, you did not realize what was said.'

D. *zai* 'again' (*zui* 'most', *ding* 'at most') …*ye* 'also'

(30) Yi-ge   ren   zai   congming   ye shi you xian.

One-Cl person more   smart   also is   has limit

'Even if one is extremely smart, there are still some limitations.'

(31) Zuiyuan   ye   jiu   shier-mi   zuoyou.

Most-far   also then   twelve-meter about

'The farest is only about twenty meters.'

(32) Dingduo   ye buguo   shi gongli.

Top-most   also only   ten kilometer

'At most it is only ten kilometers.'

III. *ye* with the meaning of 'even' preceded by an overt *lian* 'even' often occurs in
negative sentences[11]

A. the element preceding *ye* is a noun

(33) Ta tou   ye   bu tai, zhuanxin   xuexi.

He head   even   not lift pay attention learning

'He did not lift his head at all, and paid all his attention to learning.'

B. the element in front of *ye* is the construction of '*yi* 'one'+ noun'

(34) Yi-zhang   zhi   ye   mei diu.

One-CL   paper even   not throw

'Even one piece of paper is not thrown away.'

C. the element preceding *ye* is a verbal noun, and the numeral is limited to *yi* 'one'

---

[11] The question concerning why *ye* occurs more often in negative sentences will not be discussed in
this thesis (cf. Biq (1989)).

(35) Yi-ci   ye   mei qu.

     One-CL even not   go

     'Do not go even once.'

(36) Shuzhi yi   dong   ye   bu   dong.[12]

     Branch one move   even   not move

     'The branches do not move even a little.'

IV. the emphatic use that characterizes the tone of voice called roundabout, tactful

(37) Ni   ye bu shi wairen, wo dou gaosu   ni   ba.

     You   also not is   stranger I   all   tell   you particle

     'You are not stranger, and I shall tell you everything.'

(38) Ni   ye tai bu keqi   le.

     You   also too not polite   le

     'You are also very impolite.'

Besides, Ma (1982) modifies Lu's (1980) idea, proposes that *ye* signify the similarity between two expressions not mark the existence of two things, which are equivalent, as shown in (39). In (39), there is no identical element between two conjuncts. Instead, we can draw certain similarity between them: the intensity of 'the wind' and 'the rain' are both reduced.

(39) Feng   ting-le,   yu ye xiao-le.

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[12] Lu (1980) observes that when a verbal noun is the same as a verb, the numeral *yi* 'one' can be omitted, as represented by (i).

(i) Shuzhi   (yi)   dong   ye bu   dong.
    Branches   (once)   move   also not move
    'The branches don't move even a little.'

Wind   stop-SPF   rain also little-SPF

'The wind stops, and the rain becomes lighter.'

Shen (1983) further pinpoints out that the similarity between two expressions will not be of importance unless certain existence of difference between them, as shown by (40)-(42).

(40) Zhangsan   shi Meiguoren,   Lisi ye shi Meiguoren.

     Zhangsan   is   American   Lisi also is   American

     'Zhangsan is an American, and Lisi is also an American.'

(41) *Lisi   shi Meiguoren,   Lisi ye shi Meiguoren.

     Lisi   is   American   Lisi also is   American

     'Lisi is an American, and Lisi is also an American.'

(42) *Zhangsan   shi Meiguoren,   Lisi ye   shi Yingguoren.

     Zhangsan   is   American   Lisi also is   English

     'Zhangsan is an American, and Lisi is also an Englsih.'

Furthermore, Zhu (1982) proposes that *ye* denote the interpretations of 'listing.'   For example, the 'listing' reading in (40) is to state that the following two persons are Americans: *Zhangsan* and *Lisi*.

Another important point is that, according to Lu (1980) and Ma (1982), these four uses of *ye* can be generalized as the first use, namely, there is only one *ye* that functions to emphasize the likeness between two expressions.

In sum, *ye* functions to underscore the similarity between two expressions; the similarity will not be imperative unless there is certain difference between two

expressions (cf. Lu (1980), Ma (1982), Shen (1983), Zhu (1968)).

2.3 Literature Review: Syntax and Semantics of *Erqie*

According to Zhu (1968), Lu (1980), Ma (1982), Aoun and Li (2003), *erqie* is a coordinator connecting two non-nominal categories: verb phrases, adjective phrases, and clauses.[13] Interestingly, when *erqie* conjoins clauses, the clause following it usually carries some adverbs, such as *hai* 'even', *geng* 'more', and *you* 'again' as illustrated by (43)-(45). So, Lu (1980) argues that the semantics of *erqie* is *dijin* 'furthermore'.

(43) Zhe-li   bu shao ren   shi wo de lao tongxue, erqie   you

This-place   not few people   is my DE   old classmates and   have

de   *(hai)   shi hao   pengyou.

DE   even   is good   friends

'Many people here are my old classmates, and some are even my good friends.'

(44) Cong   lulu   keyi qu, cong   shuilu   ye keyi qu, erqie

From   land-rout can go   from   waterway   also can go   and

*(geng) jin   yixie.

more   near some

'You can either go by land rout or by waterway, and the distance is much shorter by waterway. '

(45) Jingyan   shi baogui de erqie   jingyan   de huode

---

[13] According to Aoun and Li (2003), presuming that *erqie* connects two verb phrases, these verb phrases can not express dual properties or activities of one individual, as shown in (i).

(i) Zhangsan   nianshu   *erqie/jian   gongzuo, hen mang.
   Zhangsan   study   and/and   work   very busy
   'Zhangsan studies and works; (he is) very busy.'

| Experience | is | treasure | De | and | experience | de | acquisition |

*(you) wangwang shi xuyao fuchu daijia de.

again always is need pay price De

'Experience is valuable, and the acquisition of that always requires efforts.'

2.5 Some Problems

There is no denying that Zhu (1968), Lu (1980), Ma (1982), and Shen (1983) give a precise description for the syntax and semantics of *ye*, but they simply give us a description instead of an analysis with explanatory adequacy for the semantic nature of *ye*. Lu (1980) either touches the question of why there are usually adverbs following *erqie*.

Besides, we shall point out that previous analysis of *ye* and *erqie* is challenged by the following questions: First, why *ye* rather than *erqie* is used in the following sentence patterns: (A) preceding the *wh…dou* construction in (46); (B) two conjuncts with the contradictory interpretations in (47); and (C) two *shi* 'is' clauses in (48). Second, why *erqie* is optional, while *ye* is obligatory in *…*(*erqie*)*…ye…*construction, as shown in the contrast between (49) and (50). Third, when a modal occurs in the coordinated structure, it has to occur in both conjuncts, as exhibited in (51).

(46) Wo jiao-guo hao xuesheng, ye/*erqie jiao-guo huai

I teach-ASP good-students also/*and teach-ASP bad

xuesheng, shenmeyiang de xuesheng wo dou keyi

students what kind DE students I all can

yingfu.

handle

'I have taught good students, and also taught bad students; I can handle all kinds of students.'

(47) Zhangsan   bu   gao ye/*erqie bu   ai.

Zhangsan   not tall also/*and not short

'Zhangsan is neither tall nor short.'

(48) Zhangsan   shi Mali   xinzhong de   hao baba,   ye/*erqie   shi

Zhangsan   is   Mary   at heart De   nice father   also/*and   is

linju   xinzhong de haohaoxiansheng.

neighbor at heart   DE nice sir

'Zhangsan is a good father at Mary's heart, and also a nice person at neighbors' heart.'

(49) Zhangsan   qu-guo   Meiguo, (erqie)   Lisi ye   qu-guo   Meiguo.

Zhangsan   go-ASP   America and   Lisi also go-ASP   America

'Zhangsan has been to America, and Lisi also has been to.'

(50) *Zhangsan   qu-guo   Meiguo, erqie   Lisi qu-guo   Meiguo.

Zhangsan   go-ASP   America and   Lisi go-ASP   America.

'Zhangsan has been to America, and Lisi also has been to.'

(51) Ni   keyi   shui   chuang, ye *(keyi)   shui   shafa.

You   can   sleep   bed   also can   sleep   sofa

'You can either sleep on the bed, or sleep on the sofa.'

The above linguistic data leads us to the basic question that what the syntactic and semantic characteristics of *ye* and *erqie* are.   In the following, we shall first discuss the properties of *ye* in Chapter Two, and then that of *erqie* in Chapter Three.

Chapter 3

Syntax and Semantics of *Ye*

In Section 3.1, we shall first propose a uniform analysis for *ye* that is treated as an additive particle, and then briefly introduce Rooth's (1985, 1992, 1997) alternative semantics to facilitate further discussion.   The semantics of *ye* will be spelled out in Section 3.2.[14]   In Section 3.3 we shall argue that the English counterpart of *ye* is *too/also*.
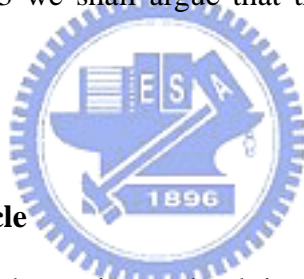
3.1   *Ye* as an Additive Particle

In this section, we shall argue that *ye* is an adverb instead of an adverbial conjunction by the following evidence (cf. Lu (1968), Liu (2001), Hole (2004)).   First, Chinese coordinated structure can be expressed by a coordinator, such as *bingqie* 'and' in (52), *er* 'and' in (53) or a zero coordinator in (54)-(57).[15]   According to Chao (1968), the

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[14] Since *ye* plays a crucial role with respect to the pitch accent of the sentence, we shall suggest that *ye* be a focusing adverb in the following section (cf. König (1991)).   Besides, the meaning of 'additive' in 'additive particle' actually derives from the presupposition of *ye*: asides from the sentence with *ye* is true, there is at least one additional expression P will be true (cf. Krifka (1999)).

[15] According to Chao (1968), in addition to an overt coordinator or a zero coordinator, there are four extra markers of coordination: (i) pause; (ii) particle; (iii) falling ending; and (iv) correlative marker or repeated marker, as shown by examples in (i)-(iv), respectively.
(i) Zhangsan   chi   yi-wan   fan, Lisi chi   liang-wan   mian.
    Zhangsan   eat   one-CL   rice Lisi eat   two-CL   noodles
    'Zhangsan ate one bowl of rice, and Lisi ate two bowls of noodles.'
(ii) Tamen tiantian   daqiu   lei,   fushuei   lei,   tiaowu   lei.
    They   everyday   play ball Particle   surf   particle   dance   Particle

zero morpheme is the most frequent marker of coordinated structures.[16]   That is to say, coordinated expressions can occur in succession without conjunctions; sometimes even without pause, as shown by (54)-(57).[17]

(52) Dushuhui   yiding   yiao   zhuzhi   qi-lai   bingqie   zhichi

    Study group   must   want   organize arise-come   and   insist

    xiaqu.

    down-come

    'The study group must be organized and kept going on.'

(53) Bali shi Faguo   de   shoudu,   er   Luoma   shi Yidali   de   shoudu.

    Paris is France   DE   capital   and Rome   is   Italy   De   capital

    'Paris is the capital of France, and Rome is the capital of Italy.'

(54) Zhangsan chi-le liang-wan   fan, Lisi chi-le   wu-wan   mian.

    Zhangsan eat-ASP two-CL   rice Lisi eat-ASP   five-CL   noodles

    'Zhangsan ate two bowls of rice, and Lisi ate five bowls of noodles.'

   'They play ball, surf and dance everyday'

(iii) Tai   hui   hua niao、   hua、   shu、fangshi,   jiushi   bu   hui   hua

    He   can   draw birds   flowers trees house   yet   not   can   draw

    ren.

    people

   'He can draw birds, flowers, trees, houses, but not people.'

(iv) a. Zhangsan budan   hui yingwen   ye   hui   fawen.

     Zhangsan not only   know English   also know French

    'Zhangsan can not only speak English but also French.'

   b. Zhangsan you   change   you tiaowu.

     Zhangsan also sing   also dance

    'Zhangsan is singing and dancing.'

[16] This does not entail that each coordinator can be substituted by a zero morpheme.   For example, some sentences will alter their meanings, supposing that the original coordinator is deleted, as shown by the contrast between (i) and (ii).

(i) Ni   yiao ziji qu   huo gen bieren   qu?

   You   want self go   or   with other people   go

   'Do you want to go by yourself or with others?'

(ii) *Ni yiao ziji qu gen bie ren qu?

[17] The conjuncts are prone to occur in succession without pause, when their conjuncts are short (cf. Chao (1968)).

(55) Ni   bu lai,   wo bu qu.[18]

    You   not come   I   not go

    'Neither do you come, nor do I go.'

(56) Ta youshihou   ku, youshihhou   xiao.

    He sometimes   cry sometimes   laugh

    'He sometimes cries and sometimes laughs.'

(57) Tamen   mai zhuozi   yizi.

    They   sold tables   chairs

    'They sold tables and chairs.'

Given this, sentences with *ye* can be conjoined by a zero coordinator, and *ye* does not

have to serve as a coordinator.

Second, *ye*, unlike a coordinator *bingqie* 'and', can occur in a single sentence, as

illustrated by (58)-(61).   Thus, *ye* can not be treated as a coordinator, since it has

nothing to conjoin.[19]

(58) Lisi   ye qu-guo   Meiguo.

    Lisi   also go-ASP   America

    'Lisi has also been to America.'

(59) *Bingqie   Lisi qu-guo   Meiguo.[20, 21]

---

[18] Example (55) is structurally ambiguous. It can be analyzed as a coordinated structure or a conditional sentence.   Since the conditional structure is beyond the scope of the thesis, we shall only focus on the first interpretation.

[19] One may argue that when *ye* occurs in a single sentence, it is a macrosyntactic use of a conjunction, depending on something outside the sentence in which it occurs.   This usage of *ye* is beyond the scope of this thesis, and we shall not discuss it in the remaining thesis.

[20] According to Zhu (1968), Lu (1980), *bingqie* 'and' is a coordinator.

And Lisi go-ASP America

'And Lisi has also been to America.'

(60) Zhe   ye jiu shi laoshi   chang   shuo de: you zhi zhe   shi

This   also then is   teacher   often   say DE: you will person   thing

jing   cheng.

eventually   success

'This is what the teacher said: where there is a will there is a way.'

(61) * Bingqie   zhe jiu shi laoshi   chang   shuo   de: you zhi

And   this then is   teacher   often   say   DE: you will

zhe   shi   jing   cheng.

person thing   eventually   success

'And this is what the teacher said: where there is a will there is a way.'

Third, a coordinator generally cannot co-occur with another coordinator or subordinator.   This substantiates that *ye*, which can follow a coordinator *qie* 'and' or a subordinator *yinwei* 'since', is not a coordinator, as shown by (62)-(64).[22]

(62) Ta changchang   bu   tinghua, bingqie   youshi   ye   hui

He usually   not obedient and   sometimes   also will

shua-piqi.

lose temper

'He is not usually obedient, and sometimes he also loses his temper.'

(63) *Ta changchang   bu   tinghua, qie   bingqie youshi   hui

---

[21] In case that more information is provided in the discourse, this sentence can be grammatical in the conversation.

[22] According to Zhu (1968), Lu (1980), *qie* 'and' is a coordinator.

He usually   not obedient and   and   sometimes   will

shua-piqi.

lose temper

'He is not usually obedient, and sometimes he also loses his temper.'

(64) (Yinwei)   ta you yi-shuang   da yianjing, suoyi   ye/* bingqie

Since   she has one-CL   big eyes   so   also/*and

geng   xiyin   ren.

more   charming   people

'Since she has big eyes, she is more charming.'

Thus far, it is plausible for us to rule out the possibility that *ye* functions as a conjunction, or as an adverbial conjunction.

In sum, we have pointed out that *ye* should be an adverb by the following reasons: (A) Chinese allows a zero coordinator, and thus *ye* does not need to function as an adverbial conjunction; (B) *ye* can occur in a single sentence; and (C) *ye* can co-occur with a coordinator or a subordinator. In the following, we shall first briefly introduce Rooth's (1985, 1992, 1997) alternative semantics as a preliminary, and then the proposal that *ye* presupposes an alternative set will be suggested.

3.2 Proposal

3.2.1 Preliminary of *Ye*: Rooth's Alternative Semantics

The idea of Rooth's (1985, 1992, 1997) alternative semantics is to account for the interpretation of focus by first proposing the idea that in addition to the ordinary semantic value of an expression α, written $[[\alpha]]^o$, each expression has a focus semantic value $[[\alpha]]^f$ that is in contrast to the ordinary semantic value $[[\alpha]]^o$. The

focus semantic value for a phrase α, represented as $[[α]]^f$, is a set of propositions that derives from the ordinary semantic value.   Seen in this way, the focus semantic value of $[[α]]^f$ results from substitution in the position corresponding to the focus phrase α of the ordinary semantic value.   For example, the focus semantic value of (65) is the set of propositions of the form 'x likes Sue', as shown by (66b).

(65) [Mary]$_F$ likes Sue.

(66) a. [[[Mary]$_F$ likes Sue]]^o = Mary likes Sue[23]

       b. [[[Mary]$_F$ likes Sue]]^f = x likes Sue, where x is in contrast to 'Mary'

Simply put, the focus semantic value of (65b) is the set of propositions contrary to the ordinary semantic value.   So, the denotation of the variable x introducing by focus is a set of alternatives of 'Mary'.

Second, in addition to the intonational reflex of focus, Rooth (1985, 1992, 1997) pinpoints out that certain lexical or specific constructions also have focus-related effect that introduces variable.[24]   For example, *only* in auxiliary position is assigned a lexical semantic value quantifying properties (cf. Rooth (1985, 1992, 1997)).   The semantic nature of *only* in (68a) is the quantification in (68b) representing that if P is a property in a certain set of properties C, and Mary has that property, and then P is identical to the property expressed by VP.

Besides, in virtue of variations derived from certain pragmatic factors, Rooth (1985, 1992, 1997) claims that the function of the focus semantic value is to constrain

---

[23] The ordinary semantic value is equivalent to the original sentence.

[24] One of the specific constructions pertinent to association-with-focus effect is a cleft sentence (cf. Rooth (1992)).   This is beyond the scope of the thesis; we shall not discuss it in the remainder of this thesis.

rather than to fix C illustrated by the focus-determined constraint in (68c).[25] Give

this, the focus semantic value for (68) is the proper superset of $[[VP]]^f$ including

propositions based on choices of x that are not people.

(67) Mary only introduces $[Bill]_F$ to Sue.

(68) a. Mary only VP

b. $\forall P [P \in C \wedge P(m) \rightarrow P=VP']$

c. Focus-determined constraint: $C \in [[VP]]^f$, where C serves as a domain of

quantification

(69) $[[VP]]^f$ = introducing x to Sue

Third, Rooth (1985, 1992, 1997) further argues that the constraints introduced by

focus interpretation can be regarded as presupposition. For instance, the

focus-determined constraint in (68c) shows the presupposition that if Mary has a

property of the form 'introducing x to Sue', then it must be the property of

'introducing Bill to Sue'. So, it excludes other possibilities.

Finally, Rooth (1985, 1992, 1997) proposes that focus semantic values be

interpreted by the operator ~, which annotates the level at which focus is interpreted

and also introduces the focus constraint, as illustrated by (71), the configuration of

(67), repeated as (70).

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[25] According to Rooth (1985, 1992, 1997), the focus semantic value is to constrain C rather than to fix
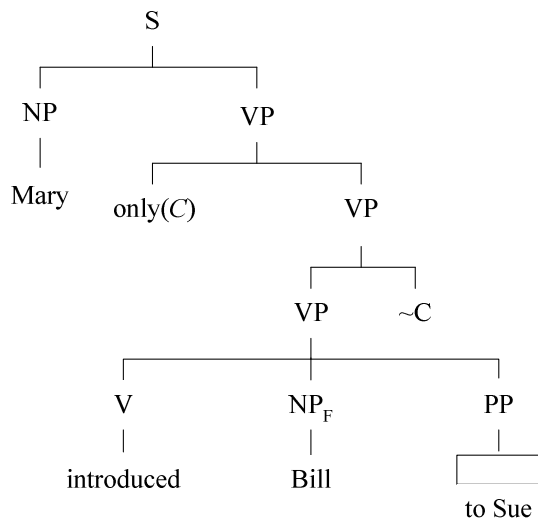it. This proposal yields the right explanation of (i).
(i) John only eat$_f$ beef noodles.
Focus-determined constraint: $C \in$ [[sell beef noodles, buy beef noodles, cook beef noodles]]
Simply put, sentence (i) means that if John has property of the form 'P beef noodles', and then it is the
property of 'eating beef noodles', rather than 'selling beef noodles', 'buying beef noodles' or 'cooking
beef noodles'.

(70) Mary only introduces [Bill]$_F$ to Sue.

(71)

```
                    S
          ┌─────────┴─────────┐
         NP                   VP
          │           ┌───────┴───────┐
        Mary       only(C)            VP
                          ┌───────────┴───────────┐
                         VP                       ~C
               ┌──────────┼──────────┐
               V         NP_F        PP
               │          │           │
          introduced     Bill      ┌───┴───┐
                                     to Sue
```

In short, the focus in (71) is interpreted at the level of VP, while *only*(*C*) is an overt representation of the domain of quantification.   Since *C* is a variable, its value is either one member of a set of propositions of the form 'introducing *x* to Sue' or is fixed by pragmatics.   Given this, Rooth (1985, 1992, 1997) stipulates the LF representation of (72) to make association of focus with focusing adverbs, *only*, obligatory.

(72)

```
            VP
      ┌──────┴──────┐
   only(C)          VP
               ┌─────┴─────┐
              VP           ~C
```
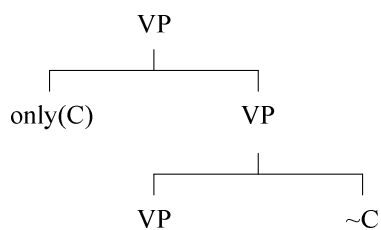
In a nutshell, the idea of alternative semantics is to account for the effect of focus by an additional focus semantic value.   Rooth (1985, 1992, 1997) argues for a uniform analysis of focus by the operator ~, which annotates the level at which focus is interpreted and also introduces the focus-determined constraint.   The function of the focus-determined constraint is to restrict the elements of the antecedent for the variable introduced by focus interpretation, and its status is identified as presupposition.   Having as a preliminary the introduction of alternative semantics, we shall propose an analysis for the semantics of *ye* in the subsequent section.

3.2.2   Semantics of *Ye*

Along the line of Rooth's (1985, 1992, 1997) alternative semantics, we shall suggest that semantically an additive particle *ye* presupposes that there is at least one contextually salient proposition P that is distinct from the sentence with *ye* is true (cf. Rullmann (2003), Tsai (2004)).   This proposal can explain the following questions: (A) how to represent the ambiguous interpretations of a single clause with *ye*, such as (74); (B) how to define previous descriptions of *ye* formally: (i) *ye* means 'listing' (cf. Zhu (1982)), (ii) *ye* signifies the similarity between the two expressions (cf. Lu (1980), Ma (1982)), and (iii) the similarity will not be significant unless there is certain difference between two expressions (cf. Shen (1983)); and (C) why *ye* rather than *erqie* occurs in certain sentence patterns.

Assuming Rooth's (1985, 1992, 1997) alternative semantics, we first assign *ye* a lexical semantic value with quantificational force.   The focus semantic value is derived from making a substitution in the position corresponding to the focus semantic value of the ordinary semantic value.   In other words, the focus semantic value and the ordinary semantic value are equivalent except for the substitution part,

turning out to be a variable introduced by the focus, and thus the semantics of *ye* is spelled out as (73).

(73) $[[ye]]=$ a set of expressions $P \in \{[[\alpha]]^f - [[\alpha]]^o\}$

Simply put, the semantics of *ye* denotes a set of expressions P belonging to a set of expressions of the focus semantic value other than the ordinary semantic value. Namely, *ye* presupposes that there is at least one contextually salient expression P that is distinct from the sentence with *ye* is true.

Assuming this way of analysis, we would be able to represent the ambiguous interpretations of (74) in a formal way. On condition that the focus is on VP, *ye* presupposes an alternative set of 'Lisi qu-guo Meiguo', as shown by 'Lisi *P*', and at least one member from that set is true, as shown in (76a). Namely, *P* can be *Lisi qu-guo Yingguo* 'Lisi has been to England', *Lisi qu-guo Riben* 'Lisi has been to Japanese', *Lisi qu-guo Deguo* 'Lisi has been to German', and etc, illustrated by (77).

(74) Lisi ye qu-guo Meiguo.

(75) Lisi ye [$_{VP}$ qu-guo Meiguo]$_f$.
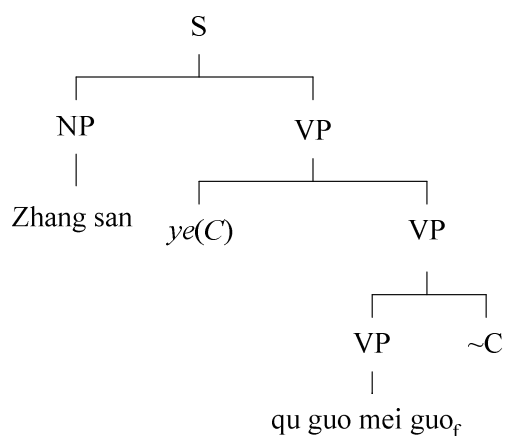
    Lisi also go-ASP America

    'Lisi has been to someplace ($\neq$ America)), and Lisi has also been to America.'

(76) a. $[[ye]]=$ a set of propositions of $P \in \{[[qu\text{-}guo\ Meiguo]]^f - [[qu\text{-}guo\ Meiguo]]^o\}$

    b. Focus-determined constraint: $C \in [[qu\text{-}guo\ Meiguo]]^f$, where *C* serves as a

        domain of quantification

(77)

```
              S
        ┌─────┴─────┐
       NP          VP
        |      ┌────┴────┐
    Zhang san ye(C)     VP
                     ┌───┴───┐
                    VP      ~C
                     |
              qu guo mei guo_f
```

On condition that the focus is on subject NP, the semantic nature of *ye* in (79) is to presuppose that there is at least one proposition with the form 'P qu-guo Meiguo', where *P* is not 'Lisi' is true, as represented by (80).   By analogy with (75), *P* can be *Zhangsan* 'Zhangsan', *Wangwu* 'Wangwu', *Zhaoliu* 'Zhaoliu'.   What is imperative is that the level at which the operator ~ interprets focus disposes two different interpretations, as exemplified by configurations (77) and (80).
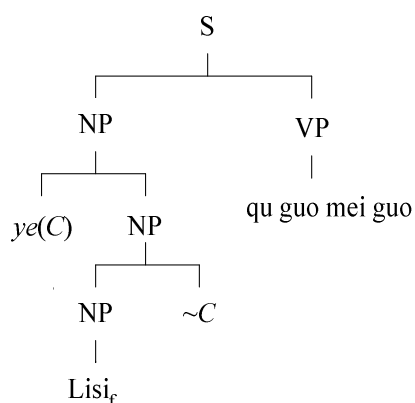
(78) Lisi$_f$ ye qu-guo Meiguo.

Lisi ye qu-guo Meiguo

'Someone ($\neq$ Lisi) has been to America, and Lisi has also been to.'

(79) a. [[*ye*]]= a set of propositions of P$\in$ { [[Lisi]]^f qu-guo Meiguo $-$ [[Lisi]]^o qu-guo Meiguo }

b. Focus-determined constraint: $C \in$ [[Lisi]]^f, where *C* serves as a domain of quantification

(80)

```
                    S
                    |
        ┌───────────┴───────────┐
        NP                      VP
        |                       |
   ┌────┴────┐             qu guo mei guo
  ye(C)      NP
        ┌────┴────┐
        NP        ~C
        |
      Lisi_f
```

Second, the proposal also helps us to account for the characteristics of *ye* reviewed in Chapter Two: *ye* signifies the similarity between two expressions; the similarity will not be significant unless there is certain difference between the two expressions (cf. Lu (1980), Ma (1982), and Shen (1983)). This phenomenon is exemplified by the ungrammaticality of (81) with more than one variable introduced by focus, and (82) without any variable.
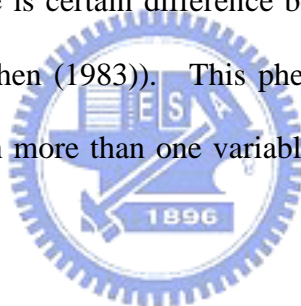
(81) *Zhangsan qu-guo Yingguo, Lisi$_f$ ye   qu-guo   Meiguo$_f$.

  Zhangsan go-ASP England Lisi   also go-ASP America

  'Zhangsan has been to England, and Lisi has also been to America.'

(82) *Lisi qu-guo Meiguo, Lisi ye   qu-guo Meiguo.

  Lisi go-ASP America Lisi also go-ASP America

  'Lisi has been to America, and Lisi has also been to America.'

Simply put, the second clause of (81) with two foci, which introduces two variables: C_1 and C_2; however, there is only one *ye* that introduces domain of quantification.

Thus, either C_1 or C_2 will be vacuously quantified and it results in the ungrammaticality of (81). In (82), no contrast between the two clauses yields the outcome that no variable for *ye* to quantify over. So, either (82) is ungrammatical.

Furthermore, the idea that *ye* denotes 'listing' can be realized as the choice of alternatives that are members in the set of proposition P, the focus semantic value other than the ordinary semantic value.

Third, in the light of the facts above, the semantics of *ye* in (73) also explains the following questions: (A) in *…(erqie)…ye* construction, *erqie* is optional while *ye* is obligatory; (B) *ye* not *erqie* precedes the *wh…dou* construction; (C) *ye* can occur in sentences with two contradictory predicates, while *erqie* cannot do so; (D) *ye* instead of *erqie* appears in sentences containing *shi* 'be'; and (E) when a modal occur in the coordinated structure, it has to occur in both conjuncts, as shown in (83)-(91), respectively (cf. Simons (2005)).
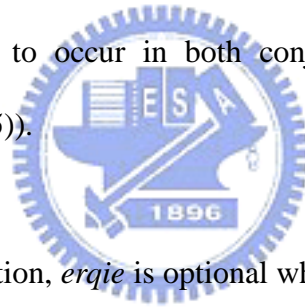
(A) In *…(erqie)…ye* construction, *erqie* is optional while *ye* is obligatory, as shown in the contrast between (83) and (84).

(83) Zhangsan   qu-guo   Meiguo, (erqie)   Lisi ye   qu-guo   Meiguo.

Zhangsan   go-ASP   America and   Lisi also go-ASP   America

'Zhangsan has been to America, and Lisi also has been to.'

(84) *Zhangsan   qu-guo   Meiguo, erqie   Lisi qu-guo   Meiguo.

Zhangsan   go-ASP   America and   Lisi go-ASP   America

'Zhangsan has been to America, and Lisi also has been to.'

In (83), *erqie* is optional because it can be replaced by a zero coordinator. In contrast, *ye* is obligatory because the speaker's presupposition that there is at least one more

person who has been to America must be saturated by the presupposition of *ye*.

For ease of exposition, we shall first explain why *ye* is used in the following sentences; whereas why *erqie* is not used will not be illustrated until the semantic nature of *erqie* is proposed in Chapter Four.[26]

(B) *Ye* not *erqie* precedes the *wh…dou* construction, as shown in (85).

(85) Wo jiao-guo   hao   xuesheng,   ye/*erqie   jiao-guo   huai

I   teach-ASP   good   students   also/*and   teach-ASP   bad

xuesheng,   shenmeyiang de   xuesheng   wo dou   keyi

students   what kind   DE   students   I   all   can

yingfu.

handle

'I have taught good students, and also taught bad students; I can handle all kinds of students.'

(86) [[*ye* (α)]] presupposes that there is at least one contextually salient expression

P∈ {teach [[bad]]^f students－teach [[bad]]^o students } such that P is true.

According to Lin (1997), Cheng (1991), and Cheng and Huang (1996), *wh* phrases obtain the universal interpretation when they occur with *dou*.   With the presupposition of *ye* in (85), it is desirable for *ye* to precede the *wh…dou* construction because the combination of the ordinary semantic value of 'teaching bad students' and the focus semantic value of that is the denotation of universal interpretation.

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[26] *Erqie* can proceed the *wh…dou* construction, occur in *shi* 'be' clauses, conjoin two contradictory conjuncts, providing that it is followed by proper adverbs, such as *ye* 'also', *hai* 'even'.

(C) *Ye* can occur in sentences with two contradictory predicates, while *erqie* cannot do so, as shown in (87).

(87) Laoshi   zanmei   women, ye/*erqie   piping   women.

Teacher praise   us   also/*and   criticize   us

'The teacher not only praises us, he also criticizes us.'

(88) [[*ye* (α)]] presupposes that there is at least one contextually salient expression

P∈ { [[criticize us]^f — [[criticize us]]^o } such that P is true.

A similar way of presupposition also obtains from *ye* in (87), as demonstrated by (88). *Ye* presupposes an alternative set of 'criticize us'. Namely, there is at least one contextually salient property P∈ { [[criticize us]^f — [[criticize us]]^o } such that P is true.
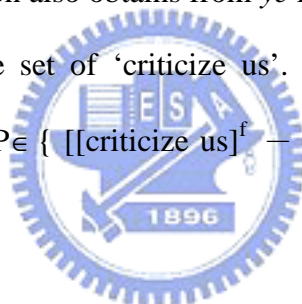
(D) *Ye* instead of *erqie* appears in sentences containing *shi* 'be' in (89).

(89) Zhangsan   shi Mali   xinzhong de   hao baba, ye/*erqie   shi linju

Zhangsan   is Mary   at heart   De   nice father, also/*and   is neighbor

xinzhong   De haohao   xiansheng.

at heart   DE nice   sir

'Zhangsan is a good father at Mary's heart, and also a nice person at neighbor's heart.'

(90) [[*ye* (α)]] presupposes that there is at least one contextually salient expression

P∈ [[nice person at neighbor's heart]]^f－[[nice person at neighbor's heart]]^o

such that P is true.

The denotations of *ye* in (89) is represented in (90). The second *shi* 'be' clause reveals the identification relationship of 'Zhangsan' and 'nice sir at the neighbor's heart' (cf. Huang (1979)). The use of *ye* presupposes that besides the identification of 'Zhangsan' and the ordinary semantic value of 'nice person at neighbor's heart' is true; there is also at least one contextually prominent identification between P∈ [[nice person at neighbor's heart]]^f－[[nice person at neighbor's heart]]^o and 'Zhangsan' is true.

(E) When a modal occurs in the coordinated structure, it has to occur in both conjuncts, as exhibited in (91) (cf. (Simons (2005)).[27, 28]

(91) Ni   keyi   shui   chuang, ye *(keyi) shui   shafa.

　　 You   can   sleep   on-bed   also can   sleep   sofa

　　 'You can either sleep on the bed, or sleep on the sofa.'

---

[27] This is only applicable when the relation of the two conjuncts is exclusive (cf. Quirk et al. (1985)). For example, in (i) one is implausible to sleep on the sofa and on the bed, simultaneously. However, if the relation of the two conjuncts is inclusiveness, either the modal of the first conjunct or that of the second conjunct can be omitted, but the interpretation has been altered, as shown in (i)-(iii).
(i) Ni   keyi he   ca, ye keyi he   kafe.
　　 You   can drink-tea also can drink coffee
　　 'You can drink tea or you can drink coffee.'
(ii) Ni   keyi he   ca, ye he   kafe.
　　 You   can drink tea   also drink coffee
　　 'You can both drink tea and coffee (at the same time).'
(iii) Ni   he   ca, ye keyi he   kafe.
　　 You   drink-tea also can drink coffee
　　 'When you drink tea, you can also drink coffee.'
Simply put, in (i) the speaker provides two choice: 'drinking tea' and 'drinking coffee' to the listener. The interpretation of (ii) is similar to that of (i) because the modal carries the widest scope. However, in (iii) the second conjunct is just like an adjunct; it is likely to be a subordinate clause rather than the coordinated construction.

[28] Thanks to Wei-Tien Dylan Tsai, Zhong-Yu Yang, and Yi-Da Xie for pointing out this point.

(92) $[[ye\ (\alpha)]]$ presupposes that there is at least one contextually salient expression $P \in [[\text{the choice of sleeping on the sofa}]]^f - [[\text{the choice of sleeping on the sofa}]]^o$ such that P is true

The semantics of *ye* in (91) is represented in (92).   *Ye* is an additive particle which presupposes that besides the ordinary semantic value of the choice of sleeping on the sofa' is true; there is at least one contextually salient proposition $P \in [[\text{ the choice of sleeping on the sofa}]]^f - [\text{the choice of sleeping on the sofa}]]^o$ such that P is true.   If the modal of the second clause is deleted, the ordinary semantic value of the focus part turns out to be the proposition of 'sleeping on the sofa', rather than 'the choice of sleeping on the sofa.'   That is to say, *ye* turns out to presuppose that besides the ordinary semantic value of 'sleeping on the sofa' is true, there is at least one contextually salient proposition $P \in [[\text{sleeping on the sofa}]]^f - [[\text{sleeping on the sofa}]^o$ such that P is true.   In this way, the presupposition of *ye* is not compatible with the first conjunct.   Thus, the modal of the second conjunct is obligatory.

To sum up, the proposal that *ye* presupposes that there is at least one contextually salient expression P that is distinct from the sentence with *ye* is true can provide explanations for the following questions raised in Section 2.5: (A) *ye* rather than *erqie* is used in the following sentence patterns: (i) preceding the *wh…dou* construction, (ii) sentences with contradictory predicates, and (iii) *shi* 'be' clauses; (B) in *…*(*erqie*)*…ye…*construction, *erqie* is optional while *ye* is obligatory; (C) when a modal occurs in the coordinated structure, it has to occur in both conjuncts.   After the demonstration of the semantic nature of *ye*, we shall next compare *ye* with *too/also*

in English.

3.3 *Ye* is Equivalent to *Too/Also*

In this section, we shall claim that the English counterpart of *ye* is *too/also* (cf. Kaplan (1984), König (1991), Rullmann (2003), Hole (2004)). Significantly important here is that Rullmann (2003) gives the semantics of *too*, and also applies it to *also*, and *as well*.[29] Given this, we shall treat the semantic properties of *also* and *too* as equivalence. We shall review previous studies of characteristics of *too*. Green (1973) is the first one who noted that *too* is obligatory after sentential conjunctions with exactly one meaning difference, as shown by the contrast between (a) and (b) in (93)-(94).

(93) a. Jo had fish and Mo did, too.

b. *Jo had fish and Mo did.

(94) a. *Jo had fish and Mo had soup, too.

b. Jo had fish and Mo had soup.
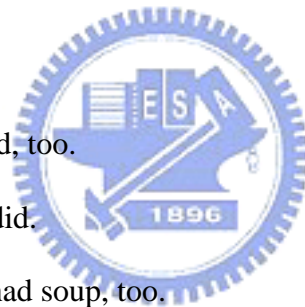
Namely, in (93b) *too* is obligatory because there is only one difference, while in (94a) *too* is unnecessary because there are two differences. This phenomenon corresponds to that of *ye* in Section 3.2.2, as illustrated by (81)-(82), repeated as (95)-(96).

(95) *Zhangsan qu-guo Yingguo, Lisi_f   ye   qu-guo   Meiguo_f.

Zhangsan go-ASP England Lisi   also go-ASP   America

'Zhangsan has been to England, and Lisi has also been to America.'

---

[29] We shall not discuss the characteristics of *as well* in this thesis.

(96) *Lisi qu-guo Meiguo,   Lisi ye qu-guo Meiguo.

Lisi go-ASP America   Lisi   also go-ASP America

'Lisi has been to America, and Lisi has also been to America.'

Besides, Kaplan (1984) provides the semantic nature and discourse function of *too*, as represented in (97) and (98), respectively.

(97) *Too* conventionally implicates: What speakers say about the contrasting (or focused) constituent in the second clause, speakers also say about the contrasting (or focused) constituent in the first clause.[30]

(98) Hypothesized discourse function of *too*: To emphasize the similarity between contrasting constituents.
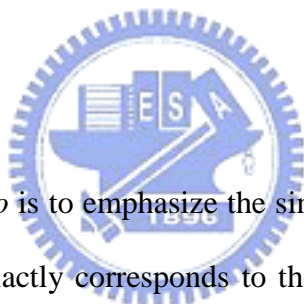
Simply put, the function of *too* is to emphasize the similarity between two items with only one difference.   This exactly corresponds to the semantics of *ye* shown in the previous sections (cf. Lu (1980), Ma (1982), Shen (1983)).

Furthermore, Rullmann (2003) adopts Rooth's (1985, 1992, 1997) alternative semantics to spell out the semantics of *too* as follows: *too* adds the presupposition that at least one of the propositions in the focus value of its host sentence is true.[31]   From the above linguistic data, we can wrap up the conclusion that the semantics of *ye* and *also/too* has no distinctions.

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[30] The word 'contrasting' means the single difference between the two conjuncts.

[31] Rullmann (2003) calls the sentence in which *too* occurs the *host* sentence.

Chapter 4

Syntax and Semantics of *Erqie*

In this chapter, we shall argue that syntactically *erqie* is a coordinator conjoining clauses and phrases (except NPs); semantically *erqie* presupposes informativeness, and requires its conjuncts to be the same polar in Section 4.1.   Next, we shall suggest that there be no Chinese counterpart of *and* in English; namely, *erqie* is not equivalent to *and* in English in Section 4.2.
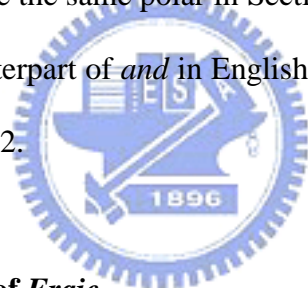
4.1   Syntax and Semantics of *Erqie*

According to Zhu (1968) and Lu (1980), we shall suggest that syntactically *erqie* be a coordinator conjoining clauses and phrases (except NPs), as represented by (99)-(103).

(99) Zhangsan   [VP chi-le fan] erqie   [VP he-le   tang].

      Zhangsan   eat-ASP rice and   drink-ASP   soup

      'Zhangsan has had some rice and soup.'

(100)Ta [AdjP hen   congming] erqie [AdjP hen   piaoliang].

      She   very   smart   and   very beautiful

'She is very smart and very beautiful.'

(101) Ta jihua-de [AdvP hen   zhouxiang]   erqie [AdvP hen yianmi].

He plan DE   very comprehensively   and   very strictly

'He plans very comprehensively and strictly.'

(102) *[NP Zhe-zhi gou]   erqie   [NP na-zhi   mao]   dou hen keai.

This-CL   dog   and   that-CL   cat   both very cute

'This dog and that cat are both very cute.'

(103) [CP Zuotian   you dizhen]   erqie   [CP zhenyang   jiu zai

Yesterday   has earthquake   and   epicenter   right at

Taipei].

Taipei

'There was an earthquake yesterday, and the epicenter is in Taipei.'

Semantically, Lu (1980) provides a precise description that *erqie* means 'furthermore',
and notices that sentences containing *erqie* usually carry adverbs, such as *hai* 'even'
and *ye* 'also', as represented in (104)-(105), respectively.

(104) Zhe-li   bushao   ren   shi wo de lao tongxue, erqie   you

This-place   not-few   people   is   my DE old classmates and   there

de   *(hai)   shi hao   pengyou

DE   even   is good   friends

'Many people here are my old classmates, and some of them are even my good

friends.'

(105) Wo jiao-guo   hao   xuesheng,   erqie   *(ye)   jiao-guo

I   teach-ASP   good   students   and   also   teach-ASP

huai	xuesheng,	(shenmeyiang de	xuesheng	wo	dou	keyi
bad	students	what kind DE	students	I	DOU	can

yingfu)

handle

'I have taught good students, and also taught bad students; (I can handle all kinds of students).'

However, Lu's (1980) simply gives us a description instead of an analysis with explanatory adequacy for the semantics of *erqie*.   Besides, Lu (1980) neither touches the question of what environments *erqie* can occur in.

In the following, we shall first point out that *erqie* can occur in the following three sentence patterns: (A) in *p erqie q* construction, *q* entails *p*, as shown in (106); (B) the propositional strength of the conjunct following *erqie* must be stronger than that of the conjunct preceding *erqie* in (107); and (C) the conjunct following *erqie* contains adverbs, such as *ye* 'also', *hai* 'even', as shown in (108)-(109).

(106)
Muqian	feiji	yijing	bei	women	kongzhi	erqie	feixing
Right now	airplane	already	BEI	we	control	and	flight

jihua	yijing	yiusuo	kengdong.
plan	already	with	change

'Right now the flight is already controlled by us, and the plan of the flight has already changed.'

(107)
Baishang	you	sanshi-ge	ren	kao-shang	guoli-daxue
class	have	thirty-Cl	people	pass	national-university

erqie	di-er-leizu	de	bangshou	zai wo-men bang.

and   second-group DE the first   in   our   class

'Thirty students in our class can enter the national universities, and furthermore the first of the second group is in our class.'

(108) Wo jiao-guo   hao xuesheng,   erqie   ye jiao-guo   huai

I   teach-ASP   good-students   and   also teach-ASP   bad

xuesheng,   (shenmeyiang de   xuesheng wo dou   keyi

students   (what   kind   DE students   I   all   can

yingfu).

handle

'I have taught good students, and also taught bad students; (I can handle all kinds of students).'

(109) Wo ren-shi   zhe-san-ge   jiaoshou,   erqie   qizhong you liang-ge

I   know   this-three-CL professors   and   among   with two-CL

*(hai)   shi wo-de   zhidaolaoshi, (wo gen tamen   zai shou

even   is   my   adviser   (I   with them   again familiar

bu-guo).

not-over

not-enough   familiar   SFP

'I know these three professors, and two of them are even my advisers. I can not be more familiar with them.'

Second, we shall suggest that the interpretation of 'furthermore' comes from the presupposition of *erqie*, relating to the notion of informativeness.[32]

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[32] Thanks for Jo-Wang Lin for pointing out this.

4.2   Analysis: *Erqie* Presupposes Informativeness

In this section, we shall first introduce the notion of informativeness in (110) as preliminaries of our analysis for the semantic representation of *erqie*, and then the proposal that *erqie* presupposes informativeness will be suggested.

(110) Informativeness: *p* is *more informative than q* if the set of states of affairs that *q* rules out is a proper subset of the set that *p* rules out (cf. BarHillel and Carna (1952), Popper (1959), Atlas and Levinson (1981), and Levinson, S.C. (2000))

Simply put, BarHillel and Carna (1952) and Popper (1959) point out that given a domain of discourse, the semantic information content of a message can be measured in proportion to the number of states of affairs that the message effectively rules out. Assuming such a definition of informativeness, we shall propose that *p* be more informative than *q* if the size of the possible worlds in which *p* is true is smaller than the size of the possible worlds in which *q* is true.   Besides, we can further infer that *p* is more informative than *q* if *p* can dominate all of the set of the possible worlds in which the sentence is true.   So, we would expect that in '*p erqie q*' construction, the speaker can make his or her speech as informative as possible with the following two strategies: one is to narrow down the set of the possible worlds in which the sentence is true; the other is to control all of the set of the possible worlds in which the sentence is true.[33]   Assuming this way of analysis, we can explain why *erqie* can occur in the following three sentence patterns.

  First, in '*p erqie q*' construction, *q* entails *p*, as shown in (111)-(112).   In (111),

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[33]   The analysis of informativeness is in accordance with Grice's Cooperative Principles, especially the Maxims of Quantity (cf. Grice (1975)):
Q1: Make your contribution as informative as is required (for the purpose of the exchange).
Q2: Do not make your contribution more informative than is required.

the second conjunct 'the location of the epicenter' entails the first conjunct 'the occurrence of the earthquake'. Likewise, in (112) the second conjunct 'ensure that he can not run away' entail the first conjunct 'imprison him'.

(111) Zuotian   you dizhen   erqie   zhenyang   jiu zai Taipei.

    Yesterday   has earthquake   and   epicenter   right at Taipei

    'There was an earthquake yesterday, and the epicenter is in Taipei.'

(112) Ba ta   guan   qilai,   erqie yao   queding ta mei fazi

    BA he   imprison   arise-come   and   must   sure   he   no   way

    taozou.

    run-away

    'Imprison him and make sure that he can not run away.'

Second, though the conjuncts do not possess the relation of entailment, the propositional strength of the conjunct following *erqie* must be stronger than that preceding *erqie*.[34] Namely, the function of *erqie* is to restrict the set of the possible worlds in which the sentence is true, as shown in (113).

(113) Ge   zu   dou dedai   hen hao   de chengji   erqie

    Each   group   all get   very good   de   score   and

    (qizhong)   yi   di-san   zu   de   chengji   dui   wei tuchu.

    (among those)   the-third   group   De   score   most   prominent

    'Every group all gets good grades, and (among those) the grades of the third

---

[34] The domain of the propositional strength is not strictly defined by the relationship of entailment, rather by the relative size of the set of possible worlds in which the sentence is true.

group are the most prominent.'

Simply put, in (113) the assertion that *(among those) the grades of the third group are the most prominent* carries more informational load than the assertion that *every group all gets good grades*. In other words, the set of the possible worlds in which *(among those) the grades of the third group are the most prominent* is true is smaller compared to the set of the possible worlds in which *every group all gets good grades* is true. Similarly, when *erqie* conjoins two coordinated predicates, the set of the possible worlds in which the sentence is true will be limited because the truth condition of the sentence is the intersection of two coordinated predicates, as shown in (114).

(114) Zhe-ke   pingguo hen dai   erqie   hen tian.
      This-CL apple   very big and   very sweet
      'This apple is very big and very sweet.'

Given a domain consisting of ten apples, and considering just the properties of apples characterized by two predicates, say *very big* and *very sweat*, the assertion *this apple is very big* may rule out just three apples, but the assertion *this apple is very big and very sweet* may rule out nine apples. In terms of the case above, it is desirable to say that the set of possible worlds in which *the apple is very big and very sweet* is true is smaller than the set of possible worlds in which *the apple is very big*.

However, one may point out that ungrammaticalities of (115) and (116), rather similar to (114), are contrary to our expectation.

(115) *Zhe-ke pingguo hen da erqie   hen suan.

    This-CL apple   very big and   very sour

    'This apple is very big and very sour.'

(116) *Zhangsan bu gao erqie bu ai.

    Zhangsan not tall and not short

    'Zhangsan is neither tall nor short.'

In fact, this question can be reinterpreted as what kind of conjunct is capable of being coordinated by *erqie*.   Before providing our answer, we shall first introduce the idea of polar opposition of adjectives.

According to Cresswell (1976), Hellan (1981), and especially Pinkal (1989), gradable adjective are characterized as expressions that map objects to abstract representations of measurement, namely, scales.[35]   Precisely, scales are sets of points (degrees) that are totally ordered along a dimension determined by the adjective (e.g., *weight, length, temporal precedence,* etc.).   In the light of antonymous pairs of adjectives such as 'big' and 'small', they map identical arguments onto the same scale (and are therefore associated with the same dimension introduced by *size*), but they introduce the opposite ordering relations (Rullmann (1995)).   Thus, such antonymous pairs 'big' and 'small' are dubbed adjectives of different polar. Significantly important here is that antonyms of other categories, a verb pair 'criticize' and 'praise' are viewed as different polar.

Let us back to the question of whether there is any restriction for the conjuncts conjoined by *erqie*.   We propose that *erqie* require the conjuncts it conjoined to be

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[35] According to Zhu (1956), adjectives can be divided into two types (cf. Zhu (1961, 1982, 1993)). One is the absolute adjective, such as *zhen* 'true' that is incompatible with any degree modifier, for example *hen* 'very'; the other is the gradable adjectives, such as *piaoliang* 'beautiful' which can optionally take a degree modifier.

the same polar, as exemplified by the following empirical facts (117)-(119).

(117) *Zhe-ke pingguo hen da erqie hen suan.

    This-CL apple   very big and   very sour

    'This apple is very big and very sour.'

(118) *Zhangsan bu gao erqie bu ai.

    Zhangsan not tall and not short

    'Zhangsan is neither tall nor short.'

(119) *Laoshi zanmei women, erqie piping women.

    Teacher praise us   and   criticize us

    'The teacher not only praises us, he also criticizes us'

Simply put, in (117) the first conjunct *very big* is on the opposite scale of 'size', still

the second one *very sour* is on the negative scale of 'sweetness'. In other words, the

two conjuncts are on the opposite polar of scales introduced by respective adjectives;

this yields to maximizing the possible worlds in which sentence (117) is true. So,

sentence (117) is ungrammatical.[36] Similarly, in (118) the two conjuncts conjoined

by *erqie*, namely, *not tall* and *not short* are expressions that map the identical

argument *Zhangsan* to the opposite side of the scale ordered along the dimension of

height. This will increment the size of possible worlds in which (118) is true, thus

neither (118) is grammatical. By analogy, we can say that the ill-formedness of (119)

is caused by different polar of the conjuncts: 'criticize' and 'praise'.

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[36] Thanks to Chen-Sheng Liu and Wei-Tien Dylan Tsai for remaining us that world knowledge plays an important role in deciding whether the conjuncts are in the same polar, as illustrated in (i):
(i)   Qinghai Xizang   gaoyuan hen gao erqie hen leng.
      Qinghai Xizang   Plateau   very high and very cold
      'Qinghai Xizang Plateau is very high are cold.'

Third, in 'p erqie q' construction, q usually contains adverbs, such as ye 'also', and hai 'even'. The presupposition carried by these adverbs increments the information load of the sentence by controlling all of the set of the possible worlds in which the sentence is true, as shown by (120) and (121).

(120) Wo jiao-guo hao xuesheng, erqie ye jiao-guo huai
     I teach-ASP good students and also teach-ASP bad

     xuesheng, (shenmeyiang de xuesheng wo dou keyi
     students what kind DE students I DOU can

     yingfu).
     handle

     'I have taught good students, and also taught bad students; (I can handle all kinds of students).'

(121) Wo ren-shi zhe-san-ge jiaoshou, erqie qizhong you liang-ge
     I know this-three-CL professors and among with two-CL

     *(hai) shi wo-de zhidaolaoshi, (wo gen tamen zai shou
     even is my adviser (I with them again familiar

     bu-guo).
     not-over

     not-enough familiar SFP

     'I know these three professors, and two of them are even my advisers. I can not be more familiar with them.'

Simply put, in (120) we have shown that ye presupposes an alternative set of *taught good students*, therefore the two conjuncts *I have taught good students, and also*

taught bad students denoting the universal interpretation can be followed by *I can handle all kinds of students*. The speaker tries to make his or her conversation as informative as possible by handling all of the set of possible worlds in which the sentence *I have taught students* is true. Likewise, in (121) *hai* 'even' presupposes that providing the least possible condition that *two of them are my advisers* is true, the assertion that *I know these three professors well* will inevitably be true.[37] Again, the speaker utilizes the presupposition of *hai* 'even' to control all of the set of possible worlds in which *I knows these three professors well* is true, and satisfies the requirement of *erqie*.

To sum up, we suggest that *erqie* presuppose informativeness by either narrowing down the set of possible worlds in which the sentence is true or by controlling all of the set of possible worlds in which the sentence is true. Besides, the conjuncts conjoined by *erqie* should be the same polar.

After the demonstration of the semantics of *erqie*, let us back to the question why *ye* rather than *erqie* occurs in the following sentence patters: (A) sentences containing two contradictory predicates; (B) preceding the *wh…dou* construction; and (C) *shi* 'be' clauses, as shown by (122)-(124), respectively.

(122) *Laoshi zanmei women, erqie piping women.

     Teacher praise us   and   criticize us

     'The teacher not only praises us, he also criticizes us.'

(123) *Wo   jiao-guo   hao   xuesheng,   erqie   jiao-guo

     I   teach-ASP   good   students   and   teach-ASP

     huai   xuesheng,   shenmeyiang de xuesheng   wo dou   keyi

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[37] See Liu (1996) and Yeh (1998) for the presupposition of *hai* 'even'.

bad students what kind DE students I DOU can

yingfu.

handle

'I have taught good students, and also taught bad students; I can handle all kinds

of students.'

(124) *Zhe shi yizhang chuang erqie shi yizhang shafa.

This is one-CL bed and is one-CL sofa

'This is a bed, and also a sofa.'

In fact, the above sentences can be rescued with the addition of proper adverbs, as

shown in (125)-(127).

(125) Laoshi zanmei women, erqie ye piping women.

Teacher praise us and also criticize us

'The teacher not only praises us, he also criticizes us.'

(126) Wo jiao-guo hao xuesheng, erqie ye jiao-guo huai

I teach-ASP good students and also teach-ASP bad

xuesheng, shenmeyiang de xuesheng wo dou keyi

students what kind DE students I all can

yingfu.

handle

'I have taught good students and also have taught bad students. I can handle

all kinds of students.'

(127) Zhe shi yizhang chuang erqie ye shi yizhang shafa.

This is one-CL bed and also is one-CL sofa

'This is a bed, and also a sofa.'

Simply put, in type B sentence (126), we have discussed the phenomenon that owning to the presupposition of *erqie*, the adverb *ye* following *erqie* is obligatory (cf. (120)). In type A, *erqie* can not conjoin contradictory conjuncts, unless *ye* is inserted. *Ye* presupposes an alternative set of 'criticize us' including the possibility of 'praise us', so sentence (125) is grammatical.   In type C, the insertion of *ye* enables the listener to know that in addition to the identification of 'this' and 'sofa' is true, another identification, such as 'this' and 'bed' is also true.   If *ye* is deleted in (127), listeners will not be able to know what the pronoun 'this' refer to: 'bed' or 'sofa'.

4.3   *Erqie* vs. *And*

In this section, we shall discuss the syntactic and semantic distinctions between *erqie* in Chinese and *and* in English.   Syntactically, *erqie* is a coordinator conjoining clauses and phrases (except NPs), while *and* is a coordinator conjoining any categories as long as they are syntactically or semantically conjoinable (cf. Zhu (19968), Lu (1980), Aoun and Li (2003), Quirk (1985)).   We shall then briefly introduce the previous analysis of *and*; then the proposal that *erqie* is not equivalent to *and* will be provided.

Several linguists, beginning with Grice (1975) and including Schmerling (1975), Posner (1978), and Gazdar (1978) propose similar analysis for *and*, they claim that *and* can be regarded as equivalent to logical conjunction, and its variation in meaning is a matter of pragmatic inference.   That is to say, *and* is basically 'symmetric', and any asymmetric interpretation is attributed to context.   For example, in (128) there is no need to set up a special 'and then' *and* for English (cf. Grice

(1975)).[38, 39]

(128) John stood up and objected to the proposal.

Whether the symmetric *and* and asymmetric *and* should be analyzed as a uniform phenomenon or not is not the central issue of this thesis. We shall focus on discussing the multiple interpretations of *and* to support that the English counterpart of *erqie* is not *and*. In case that *and* is a symmetric conjunction, the order of the two clauses can be reversed, as shown in (129a-b).

(129) a. Paris is the capital of France, and Rome is the capital of Italy.

    b. Rome is the capital of Italy, and Paris is the capital of France.

In contrast, the order of the clauses conjoined by an asymmetric *and* can not be reversed, as in (130)-(132). Significantly important here is that the asymmetric use of *and* denotes the interpretation of cause-effect, temporal succession, nontemporal succession, as shown in (130)-(132), respectively.

(130) John called a secret meeting and offended Mary.

(131) John went to the store and bought some whiskey.

---

[38] Supposing *and* is interpreted as a symmetric conjunction, the order of the conjuncts can be reversed, as in (i) and (ii).
(i) Paris is the capital of France, and Rome is the capital of Italy.
(ii) Rome is the capital of Italy, and Paris is the capital of France.
Both (i) and (ii) exhibit a linguistic property in (iii).
(iii) $p.q \equiv q.p$

[39] Grice (1975) suggests that the hearer may infer such a temporal sequence on the basis of a principle of conversation, that is, we talk about events in the order in which they occurred.

(132) Aunt Hattie wants you to be nice and kisses your granny.

　　(= It would be nice of you to kiss your granny.)

We shall point out that the usages of *erqie* do not match to those of *and* because of the ungrammaticality of its counterpart in English, as shown in (129)'-(132)' (cf. Schmerling (1975))

(129)' a. * Bali shi Faguo   de   shoudu, erqie Luoma shi Yidali de shoudu.

　　　　　Paris is France   DE   capital and   Rome   is Italy   De capital

　　b.* Luoma   shi   Yidali   de shoudu   erqie Bali   shi Faguo de shoudu.

　　　　Rome   is   Italy   De capital   and Paris   is France De capital

(129)'' a. Bali shi Faguo de shoudu   er   Luoma shi Yidali de shoudu.

　　　　Paris is France   DE capital and   Rome   is Italy   De capital

　　b. Luoma shi   Yidali   de shoudu   er   Bali   shi Faguo   de

　　　　Rome   is   Italy   De capital   and Paris   is France De

　　shoudu.

　　capital

(130)'*Yuehan   zhaokai mimi huiyi   erqie   maofan-le   Mali.

　　John   call   secret meeting and   offend-ASP   Mary

(130)'' Yuehan   zhaokai mimi huiyi   jieguo   maofan-le   Mali.

　　John   call   secret meeting   the result offend ASP   Mary

(131)'*Wo   qu-le   shangdian   erqie   mai-le   weishigi.

　　I   go-ASP   store   and   buy-ASP whisky

(131)'' Wo   qu-le   shangdia   ∅   mai-le   weishigi.

(132)'*Zhang ayi xiwang ni haoxin erqie   qinwen nide   nainai.

Zhang aunt think   you nice   and   kiss   you DE grandma

(132)'' Zhang ayi renwei   ruguo   ni   neng   qinwen ni   de

       Zhang aunt think   if   you can   kiss   your DE

       nainai,   ni   shi hen   tiexin   de.

       grandma   you is   very   sweet   DE

Simply put, in (129) the symmetric *and* is understood as *er* 'and' in Chinese as shown

in (129)''.   Regarding to multiple meanings of the asymmetric *and* in (130)-(132),

they are translated to different words, as shown in (130)''-(132)'', respectively: (A)

the cause-effect *and* in (130) can be seen as *jieguo* 'the result' in Chinese, as shown in

(130)''; (B) the temporal succession *and* in (131) can be replaced by a zero

coordinator as shown in (131)''; and finally (C) the nontemporal succession *and* in

(132) seems to be a subordinator rather than a coordinator, as shown in (132)''.

    From the above linguistic data, it reveals that *and* can coordinate conjuncts with

the relations of cause-effect, temporal succession, or non-temporal succession,

whereas *erqie* cannot do so.   Therefore, *erqie* can not be translated as *and* in English.

Chapter 5

What Kind of Conjuncts *He* 'and' Conjoins

Chinese coordinators can be classified into different types according to the categories that they conjoin (cf. Tseng (1977), Zhu (1982), Liu (2000)).   In this chapter, we shall first present the previous analysis of *he* in Section 5.l, and then point out some counterexamples observed by Lu (1980) and Zhu (1982).   In Section 5.2, we shall briefly introduce the basic notion of the first-order predicate and the higher-order predicate, and then the proposal that *he* conjoins arguments is provided.

5.1   Literature Review

In English, the coordinator *and* can be used to conjoin like phrases of basically any category, whereas in Chinese there is a rich set of coordinators used to connect different types of like categories.   For example, *he* can only connect phrases, more specifically, nominal expressions, such as proper names, pronouns, expressions containing demonstratives, or number + classifier, as shown in (133)-(136) (cf. Chao (1968), Tseng (1977), Aoun and Li (2003).

(133) Zhangsan   he Lisi fenbie   qu Meiguo he Yingguo

Zhangsan   and Lisi respectively   go   America and England

liuxue.

study abroad

   'Zhangsan and Lisi study abroad in America and England, respectively.'

(134) Ta he   wo dou xihuan   gou.

He and I   all   like   dogs

'He and I all like dogs.'

(135) Zhe-zhi gou he   na-zhi   mao dou hen keai.
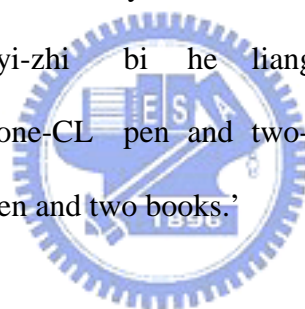
This-CL dog and that-CL   cat   both very cute

'This dog and that cat are both very cute.'

(136) Zhangsan   mai-le   yi-zhi   bi   he   liang-ben shu.

Zhangsan   buy-ASP one-CL   pen and two-CL   book

'Zhangsan bought one pen and two books.'

At a superficial level, the idea that *he* conjoins nominal phrases seems to be
reasonable, since this can fill in the gap of *erqie*, which fails to conjoin noun phrases.
However, this claim is challenged by examples like (137)-(138):

(137) Taishan   de jingse   *(shifen) zhuangli   he   xiongwei.

Taishan   DE scenery   very   grandeur   and   majestic

'The scenery of Taishan is very grandeur and majestic.'

(138) Wo *(hai)   yao   shuoming   he buchong   ji-ju.

I   still   want   explain   and supplement   several sentences

'I still want to explain and supplement several sentences.'

In the following, we shall first briefly introduce the notion of the first-order predicate and the higher-order predicate; then our proposal that *he* conjoins arguments will be illustrated.

5.2 Proposal

5.2.1 Preliminary Analysis

5.2.1.1 First-Order Predicate

The basic atomic type are e (for entity) and t (for truth value). That is to say, an expression of syntactic categories, like proper names and individuals, can be said to be of the type e. A sentence, denoting a truth value, is of the type t (cf. Montague (1974), Heim and Kratzer (1998)). In the first-order logic, it only allows us to quantify over variables whose type is e; for example, we can say that there is something that has the property of being large, as represented by (139) (cf. Barwise and Etchemendy (2000)).

(139) $\exists x \cdot large(x)$

Simply put, 'something' denotes an individual of the type e, and 'large' is a first-order predicate that is a predicate applicable to individuals.

5.2.1.2 Higher-Order Predicate

First-order predicate is not sufficient to describe our languages. There are many nouns and verbs that are not properties of individuals, but properties of properties of individual. Thus, the higher-order predicate that is possible for a quantifier to bind

not only individuals but also predicate variables is introduced. The following example from Partee et al. (1990) makes the idea of higher-order predicates very clear: if the vase is blue, and blue is a color; we cannot say that the vase is a color, but rather the vase is *of* a color. The predicate 'is a color' cannot properly be applied to an ordinary individual, 'the vase', but can be applied to the property of the individual 'blue'.

Besides, higher-order logic is useful for describing the semantics of various categories in natural language, such as an adverb, which takes the first-order predicate as its argument (cf. Reichenbach (1947), Allwood et al (1997)).

5.2.2 *He* Conjoins Arguments[40]

Assuming the above predicate logic, we shall suggest that *he* conjoin arguments rather than nominals. It is crucial that adverbs preceding two conjuncts conjoined by *he* are obligatory, as illustrated in (140)-(142). Thus, we claim that the conjuncts conjoined by *he* are the arguments of adverbs, the higher-order predicates that quantify over properties of individuals.

(140) Taishan de jingse   *(shi-fen)   zhuangli   he   xiongwei.[41]

     Taishan DE scenery   very   grandeur   and   majestic

     'The scenery of Taishan is very grandeur and majestic.'

---

[40] Thanks for Chen-Sheng Liu for pointing out this.

[41] One may ask why there exists a difference in the degree of grammaticality between different adverbs, as shown by in (i)-(ii).
(i) Taishan   de   jingse   shifen   zhuangli   he   xiongwei.
     Taishan   De   scenery   very   grandeur   and   majestic
(ii) ?Taishan   de   jingsehen   hen   zhuangli   he   xiongwei.
     Taishan   De   scenery   very   grandeur   and   majestic
Simply put, a disyllabic adverb *shifen* 'very' is more suitable to be a higher-order predicate than a monosyllabic adverb *hen* 'very'. This may be related to prosodic structures requiring further study (cf. Shih (1986)).

(141) Ta-de   hua   shi *(nayang)   mingque   he youli.

His   words   is   so   accurate   and powerful

'His words are so accurate and powerful.'

(142) Wo *(hai)   yao   shuoming   he buchong   ji-ju.

I   again   want   explain   and supplement   several sentences

'I want to explain and supplement several sentences again.'

As for (140) the adjectives 'grandeur' and 'majestic' are type <e, t>; we can therefore infer that the conjunctive expression 'grandeur and majestic' is also type <e,t>. The adverb *shifen* 'very' is a higher-order predicate that quantifies over the conjunctive expression 'grandeur and majestic'. Also, sentence (141) will turn out to be ungrammatical, if the adverb *nayang* 'so' is deleted. Given this, *he* conjoins two predicates, namely, *mingque* 'accurate' and *jouli* 'powerful' rather than arguments. Likewise, in (142) the adverb *hai* 'again' is obligatory because it is the higher-order predicate that takes two arguments conjoined by *erqie*: *shuoming* 'explain' and *buchong* 'supplement'. However, one may question the proposal by providing the following sentences:

(143) *Wo   zhidao   Zhangsan   xihuan   pinggou he Lisi xihuan

I   know   Zhangsan   like   apple   and Lisi like

xianjiao.

banana

'I know that Zhangsan likes apples, and Lisi likes bananas.'

(144) Ta zuotian   he jintian   *(dou)   lai   zhao   wo.

Ta yesterday   and today   all   come   look-after   me

'He comes to see me today and yesterday.'

(145) Zhe-ding   maozi   he na-jian yifu,   ni *(zhi)   neng   xuan

This-CL   hat   and that-CL clothes   you only   can   choose

qizhong   yi-yang.

one   one-item

'This hat and that clothes, you can only choose one of them.'

Simply put, in (143) two clauses conjoined by *he* are arguments of the verb *zhidao* 'know', yet the sentence is ungrammatical because *he* can only conjoin phrases rather than clauses. Besides, contrary to our predication, two conjuncts conjoined by *he* are not arguments, but sentences (143) and (144) are still grammatical. In (143) the conjuncts conjoined by *he*, *zuotian* 'yesterday' and *jintian* 'today', are adjuncts, while in (144) *zhe-ding maozi* 'this hat' and *na-jian yifu* 'that clothes' are topics. Though two conjuncts conjoined by *he* are not arguments, it is noticeable that adverbs, such as *dou* 'all' and *zhi* 'only' are obligatory. We argue that problems concerning (143) and (144) should not be exclusively attributed to the semantic nature of *he*, and require further study of characteristics of theses adverbs.[42]

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[42] Thanks for Jo-Wang Lin for pointing out this.

Chapter 6

Conclusion

This thesis deals with two topics: (I) an adverb *ye*; (II) two coordinators *erqie* 'and' and *he* 'and', which conjoin different types of conjuncts. We first argue that syntactically *ye* behaves as an adverb in the coordinated construction; semantically *ye* presupposes that there is at least one contextually salient expression P that is distinct from the sentence with *ye* is true (cf. Rooth (1985, 1992, 1997), Rullmann (2003), Tsai (2004)). This analysis helps us to represent the semantic nature of *ye* formally; provides explanations for the characteristics of *ye* (cf. Lu (1980), Ma (1982), Shen (1983)).

Second, we argue that the interpretation of 'furthermore' conveyed by *erqie* derives from the presupposition of *erqie* (cf. Lu (1980)). That is, *erqie* presupposes informativeness and requires its conjuncts to be the same polar (cf. BarHillel and Carna (1952), Popper (1959)). The notion of informativeness can be defined by two strategies: one is to narrow down the set of possible worlds in which the sentence is true; the other is to dominate all of the set of possible worlds in which the sentence is true.

Crosslinguistically, the English counterpart of *ye* is *too/also* that presupposes an alternative set.   Yet, the usages of *erqie* are not equivalent to those of *and*.

Finally, we propose that *he* conjoin arguments of either first-order predicate or higher-order predicate, instead of conjoining nominal expressions (cf. Reichenbach (1947), Chao (1968), Tseng (1997)).

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