




RESEARCH ARTICLE

A pragmatics-cognitive approach to the opposition relations lexicalized in Chinese

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Abstract

Contrast, adversative and corrective can all be represented by *er* in Classical Chinese, but they are lexicalized respectively by *er*, *danshi* and *ershi* in Modern Chinese. The two lexicalization systems suggest that the opposition relations have commonalities as well as differences. In the framework of relevance theory and ‘three domains’, this study argues that the three opposition relations are in different cognitive domains, at different representational levels, and trigger different inferences, which accounts for their diverse lexicalizations in Modern Chinese. The opposition relations also have cognitive or metaphorical connections with each other, which justifies their unified actualization in Classical Chinese. The pragmatics-cognitive framework could also account for interlinguistic data.

1. Introduction

The opposition relations¹ can be classified into three major categories: contrast, concessive and corrective (Izutsu 2008). In contrast, ‘two comparable states of affairs are typically contrasted by taking two topics and predicating them to differ in some respect’ (Foolen 1991:83), such as *Tony is short, and Peter is tall*. Corrective exists between a negated conjunct and a corrective conjunct that replaces the wrong or inappropriate part of the negated conjunct, as in *She will not go to London, but to Paris*. Concessive in Izutsu (2008) refers to denial of expectation; it is substituted in this study by ‘adversative’. Besides denial of expectation, in which the second conjunct denies an inference suggested by the first, adversative also includes other branches, such as restriction and contradicting evaluations (Rudolph 1996, Malchukov 2004). In restriction, what happens is less than what is expected, like *He is tall, but shorter than me*. Contradicting evaluations (or argumentative use in

¹ I adopt the term ‘opposition relation’ of Izutsu (2008) to refer to the three relations. Previous studies also use ‘adversative’ and ‘contrastive’ as joint terms, but as shown in Izutsu (2008: 647), their uses are inconsistent in previous studies, which may result in confusion and complication.

Jasinskaja's (2012) term) give an argument and a counterargument for the same claim or suggestion, as in *The suit is beautiful but expensive*.

Contrastive, adversative and corrective relations are actualized by different connectives in some languages, such as German, Spanish and Romanian; they can also be represented by a single connective in some languages, such as Tuvaluan, Supyire and Koromfe (Mauri 2008: 136). However, it was rarely mentioned that both the unified lexicalization and the multiple lexicalizations of opposition relations appear in Chinese: the contrastive, adversative and corrective relations can all be represented by *er* (而) in Classical Chinese but in Modern Chinese (i.e. Mandarin), they are lexicalized as *er* (而), *danshi* (但是) and *ershi* (而是), respectively. The following examples illustrate typical occurrences of the three opposition relations:

I. Classical Chinese:

(1) Contrast:

Ran hou zhi sheng yu youhuan, **er** si yu anle ye.
 this after know born P. misery **and** die P. happiness SFP²
 'Men would then realize that they were born of misery and died of happiness.'
 (*Mengzi* 'Mencius')

(2) Adversative:

Qing chu yu lan, **er** sheng yu lan.
 indigo.blue out P. indigo.plant **but** superior P. indigo.plant
 'Indigo blue is extracted from the indigo plant, but it is bluer than the plant.'
 (*Xunzi, quanxue* 'An Exhortation to Learning')

(3) Corrective:

Shi shi zhi fei zi **er** hua.
 pick.up look.at it NEG writing **but** painting
 'Pick it up and look at it; it is not a writing, but a painting.'
 (*Liaozhai zhi yi* 'Strange tales from Liaozhai')

II. Modern Chinese:

(4) Contrast:

Ni guanxin zhege shijie, **er** women guanxin ni.³
 2SG care this world **and** 1PL care 2SG
 'You care about the world, and we care about you.'

(5) Adversative:

Ta wei zhe bu zuopin fuchu-le henduo, **danshi** ta bu houhui.
 3SG for DEM CL work contribute-PFV many **but** 3SG NEG regret
 'She has contributed a lot to this work, but she has no regrets.'

² The following abbreviations are used in our glosses and in-text examples: 1SG=first person singular, 3SG=third person singular, 1PL=first person plural, 3PL=third person plural, aux.=auxiliary, ADV=adverb, CL=classifier, CRS=currently relevant state, DUR=durative, DEM=demonstrative, INTER=interrogative, MET=meta-representational marker, NEG=negation, NMLZ=nominalizer, SFP=sentence-final modal particle, SUPER=superlative (degree), P.=preposition, PFV=perfective aspect, poss.=possessive

³ The examples without labeled sources are from Internet corpus.

- (6) Corrective:
 Xuexi bushi weile bama, **ershi** weile niziji.
 study NEG for parents **but** for yourself
 ‘You are not studying for your parents, but for yourself.’

The two lexicalization systems are shown in Table 1.

Table 1. Opposition connectives in Classical Chinese and Modern Chinese⁴

	contrast	adversative	corrective
Classical Chinese	<i>er</i>	<i>er</i>	<i>er</i>
Modern Chinese	<i>er</i>	<i>dan(shi)</i>	<i>ershi</i>

There is a consensus that these three opposition relations have commonalities as well as differences (Spooren 1989, Blakemore 2000, Malchukov 2004, Soffner 2006, Izutsu 2008, Jasinskaja & Karagjosova 2020). This could be why they are realized by a single lexical item in some languages but by separate connectives in others. However, despite numerous comparative analyses, it is still unclear how opposition relations are linked to and separated from one another. The current study, in this view, intends to analyze the distinctions and connections of opposition relations by comparing the two different lexicalization systems in Classical and Modern Chinese.

This study is organized as follows. Section 2 reviews previous approaches to opposition relations. Section 3 introduces the theoretical framework adopted by this study. Section 4 delimitates the opposition relations in terms of their mental representations and the inference processes they trigger to produce cognitive effects. Section 5 finds out in which cognitive domain(s) the opposition relations are interpreted and how they are connected to one another. Conclusions are offered in Section 6.

2. Previous Studies

2.1. Chinese studies

Most Chinese studies focus on one opposite connective. Studies on *er* generally believed that *er* in Classical Chinese has various uses, such as the contrastive ‘while/and’, the consecutive ‘and then’, the adversative ‘but’, the additive ‘as well as’, the causative ‘and so’, the conditional ‘if’,⁵ etc. (Chen 1994). Li (2011) claims that the primary function of *er* is to mark coordination and that the causal or adversative relation indicated by *er* in Modern

⁴ Different methods exist to represent one specific opposition relation, just as in English. For instance, the adversative connectives in modern Chinese include *buguo*, *que*, *keshi* and *zhishi*, while *dan(shi)* has the most general use, as will be discussed in Section 2. Corrective can be represented by ‘negation+correction’ without any connective in both Classical and Modern Chinese, as shown in (34). Table 1 just highlights the fact that *er* can represent three opposition relations in Classical Chinese, but not in Modern Chinese.

⁵ I translate contrastive *er* in Classical Chinese into *and* instead of *while* because *and* has more pragmatic uses.

Chinese can be obscure. Because *er* and *danshi* can sometimes be used interchangeably, some scholars contend that *er* has an adversative function in Modern Chinese (Wang 1955, Lü 1990). However, according to Yan (2009), *er* does not have an adversative use in Modern Chinese; it only indicates that the conjuncts are contrastive. In (5), for example, ‘what she did’ and ‘what she felt’ can be contrastive, and *danshi* can be changed with *er*:

Studies on the adversative relation indicate that *danshi* has the most general meaning among other adversative connectives, as it covers three subtypes of adversative relation: contradiction (as shown in Example (28)), denial of expectation and restriction (Xing 1992, 2002, Shi & Sun 2010, He 2016, Zong 2012). From a diachronic perspective, they argue that the adversative connectives, such as *danshi*, *buguo* and *zhishi*, have all developed through three successive steps: ‘restrictive adverb + verb’ (e.g. *dan* ‘only/just’ + *shi* ‘be’), restrictive adverb (*only/just*) and adversative connective. However, only *danshi* develops from the weakest adversativity (namely, restriction) to the strongest adversativity (namely, contradiction) (Shi and Sun 2010, He 2016). Regarding the reason, He (2016: 109–110) suggests that the restrictive *p danshi q* ‘absorbs’ the context-specific meaning of denial of expectation.⁶

Some studies on *bushi...ersh* indicate that the negative conjunct in this construction involves either a truth-conditional negation, like (6), or a non-truth conditional negation (Shao & Wang 2010, Zong 2012, Tan 2016b), like (7):

- (7) Dui ta lai shuo, zhe bu shi yi tiao gou, ershi shenbiende yi ge
 for 3SG aux. say this NEG be one CLF dog but close one CLF
 qinren
 family.member
 ‘To him, it is not a dog, but a close family member.’
 (Shao & Wang 2010: 328)

However, some others argue that *bushi* indicates the negation of an existing utterance or thought rather than describing a state of affairs (Teng 1978, Yeh 1995). In this view, both (6) and (7) are non-truth-conditional (Zuo 2017, 2020). This issue will be discussed in detail in the rest of this paper.

Tan (2021) is the only study indicating that Modern Chinese uses *er* to mark corrections with post-positioned negation. An example is (8):

- (8) Ta qu le Bolin er mei qu Bali
 3SG go-PFV Berlin and not to Paris
 ‘He went to Berlin, not to Paris.’
 (Tan 2016b: 55)

The first conjunct of (8) does not contain a wrong or inappropriate part that needs correction. Actually, (8) is more of a contrast between ‘the city that he went’ and ‘the city that he did not go’ than a correction.

In summary, Chinese studies tend to focus on the semantic traits of the discourse relation(s) embodied by each opposition connective, without giving much attention to how they are connected, let alone comparing the lexicalizations of Classical and Modern

⁶ More details will be provided in 5.2.

Chinese. They thus raise the following questions: 1) If the primary function of *er* is coordination, how do we explain its adversative and corrective use in Classical Chinese? Does it really have an adversative use in Modern Chinese? 2) How do the corrective connectives *er* in Classical Chinese and *ershi* in Modern Chinese relate to one another? What function does *shi* perform? 3) Why can restriction, denial of expectation, and contradiction be expressed by *danshi*, whereas contrastive and corrective cannot?

Studies in other languages have long been concerned with the connectives representing various opposition relations. In the following paragraphs, I will examine these studies to see whether they provide any ideas for addressing the questions left by Chinese studies.

2.2. Studies in other languages

Semantic studies have examined the distinction of opposition relations. For instance, Izutsu (2008) proposes four semantic parameters – the mutual exclusiveness of different compared items, the number and kind of compared items, the involvement of an assumption/assumptions, and the validity of segments combined – and claims that the last three can distinguish contrast, concessive and corrective. Jasinskaja and Zeevat (2008) indicate that *i* ‘and’, *a* ‘and, but’ and *no* ‘but’ in Russian impose different kinds of constraints on the ‘questions under discussion’ addressed by their conjuncts. Semantic analysis tends to focus on describing the semantic or syntactic properties of each opposition relation rather than explaining why certain oppositions can share the same linguistic form, and the description of semantic traits appears complicated at times. Moreover, as semantic and syntactic traits are often language-specific, it happens that Chinese connectives cannot be handled by accounts built on the data of other languages. For example, according to Karagjosova (2012), the adverbial *doch* in German is concessive and anaphoric, whereas the conjunction *doch* is not anaphoric, allowing it to mark a wider range of contrastive discourse relations besides concession. Such phenomena are not easily paralleled in Chinese.

Some studies transcend language-specific details and identify more universal features. For example, Jasinskaja (2012: 1990) notes that the common feature of different uses of *but* is the contrast between ‘something positive’ and ‘something negative’: a positive statement and a negative statement in semantic opposition, an argument and a counterargument in argumentative use of *but*, a trigger of an expectation and a denial of it in denial of expectation, syntactically positive and negative applying to the logical form in correction. She thus highlights the central role played by negation in the semantics of adversative connective, which has been suggested in earlier studies. For instance, Anscombe and Ducrot (1977) argue that in $p \text{ mais}_{PA} q$ (PA for German *aber* and Spanish *pero* – namely, the adversative *but*), p is an argument for a possible conclusion r , whereas q is an argument against the conclusion r . Compared with p, q is assigned more argumentative force in favor of $\neg r$. In $p \text{ mais}_{SN} q$ (SN for German *sondern* and Spanish *sino* – namely, the corrective *but*), p must be a sentential negation. By saying $p \text{ mais}_{SN} q$, the speaker presents q as the justification for his refusal of p ’s positive counterpart. According to Umbach (2004, 2005), adversative precludes the possibility that the second alternative is true in addition to the first one, whereas corrective eliminates the possibility that the first option applies in place of the second one. Briefly, previous studies have demonstrated that negation and opposition are tightly related. The investigation into how negation aids in identifying the connection and difference between opposition relations will continue in this study.

Pragmatic analysis was also conducted in previous studies. To analyze the Hebrew *aval* (adversative) and *ela* (corrective), Dascal and Katriel (1977) propose the ‘layers of meaning’: from an inner ‘core’ of propositional content to an outer ‘shell’ of conversational implicature, via modality, illocutionary force, felicity conditions, etc. Koenig and Benndorf (1998) distinguish *aber* from *sondern* based on the type of inferential processes they trigger, which is related to logical expressions, world knowledge and Horn’s (1989) Q-Maxim and R-Maxim. As per Blackmore’s (1989, 2000) examination within the framework of relevance theory (RT), adversative *but* indicates that the proposition it introduces is relevant as a denial of an ‘expectation’ created by the utterance of the first conjunct, whereas contrastive *but* indicates that there is no guarantee that each of the conjuncts is relevant in their own right. Based on the ‘pragmatic ambiguity’ within the three cognitive domains that she proposes, Sweetser (1990) suggests that *but* in denial of expectation is interpreted in the epistemic domain, whereas *but* in contrasting evaluations is interpreted in the speech-act domain.

Foolen (1991) emphasizes the pragmatic interpretation of opposition relations as part of a general theory of interpretation, inferencing and reasoning that costs nothing extra. This study concurs with Foolen (1991) that pragmatic approaches are more inclusive and eliminate the unnecessary complexity associated with some semantic research. However, the classifications of opposition relations remain puzzling despite some insightful pragmatic findings. For instance, some studies adopt the trichotomy of contrast, adversative and corrective (Spooren 1989, Blakemore 2000, Soffner 2006, Izutsu 2008), whereas some hold that the contrastive use of *but* is only a pragmatic realization of the denial of expectation (Lang 1984, Foolen 1991, Winter & Rimón 1994). Contrastive use also has multiple interpretations. For instance, it only refers to restriction in Jasinskaja (2012) but includes *and*-contrast (e.g. *Peter lives in Paris, and Ana lives in Lyon.*) in Blakemore (1989) and Izutsu (2008). The classifications of the adversative relation are also inconsistent. For example, Izutsu (2008) uses concessive and adversative interchangeably to refer to ‘denial of expectation’, whereas other studies indicate that adversative and concessive serve different functions (Oversteegen 1997, Sæbø 2003, Malchukov 2004).⁷ Moreover, according to different studies, adversative relation may include any of the following opposition relations: contradicting evaluations, restriction, miratives, concessive, contradiction (Xing 1992, Malchukov 2004, He 2016, Tan 2021).

Furthermore, typological research incorporating semantic and pragmatic analysis does not incorporate Chinese data. For instance, Malchukov’s (2004) semantic map shows that correction is more closely associated with contrast than adversative without providing any linguistic evidence. Indeed, Modern Chinese’s contrastive connective *er* and corrective connective *ershi*, which share a similar form, might provide some support. Mauri (2008) argues that in a language that uses the same construction for all forms of contrast relations, all the specific relations indicated by the general marker are undercoded and must be inferred from context. This is not the case for Classical Chinese, where the ‘general marker’ *er* typically codes the adversative relation. In addition, the adversative connective in Modern Chinese, *danshi*, originates from *dan*, the restriction marker in Classical Chinese, rather than

⁷ In Modern Chinese, the concessive connective 虽然 *suiran* ‘although’ can be used in all the subtypes of adversative relation, such as denial of expectation, restriction and contracting evaluations (Tan 2016a); it can appear in conjunction with the adversative connective 但是 *danshi* ‘but’, reinforcing the incompatibility of two conjuncts, as shown in (24). This study agrees with Malchukov (2004: 181) that concessive is more committed than adversative in terms of incompatibility, but it is not a discourse relation independent from adversative.

from the adversative *er*. Typological investigations could have taken this phenomenon into account.

In this view, this study aims to obtain a general account of opposition relations that incorporates Classical and Modern Chinese data. Some approaches taken by earlier studies – such as the role of negation in the semantics of the polyfunctional adversative connective, the inference of opposition relations within RT, and their interpretation in the ‘three domains’ – are not language-specific and inspired this study. All these techniques, however, are thought to be amenable to further investigation.

3. Theoretical Framework

This section gives a quick explanation of why and how the aforementioned approaches may be explored to incorporate a broader range of opposition relations.

3.1. The meta-representation approach and RT

Negation is central in the semantics of the polyfunctional adversative connective (Jasinskaja 2012). The different uses of negation have been discussed with the adversative and corrective connectives. For instance, Anscombe and Ducrot (1977) hold that the metalinguistic negation licenses the corrective *mais*, whereas descriptive negation triggers the adversative *mais*. A more thorough delimitation of negation is provided by the meta-representation approach in RT, which may enable a further delimitation of the opposition relations.

Sperber and Wilson (1995: 232) propose that a representation can be used in two ways: either descriptively, representing some state of affairs (SOA) in virtue of its propositional form being true of that SOA, or interpretively, representing some other representation, which also has a propositional form. Every utterance is the interpretive expression of the speaker’s thought (Idem: 228). ‘The interpretation of a description’ determines a first-order interpretation, simplified as ‘representation’. ‘The interpretation of an interpretation’ always involves a second-order interpretation – namely, the meta-representation – which relies on the resemblance of the higher-order representation and the lower-order representation. The approach of meta-representation can be illustrated by Figure 1.

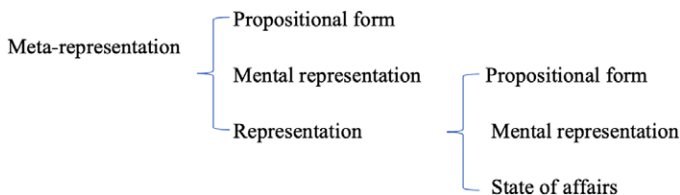


Figure 1. Representation and meta-representation.

The meta-representational approach has been applied to explain descriptive negation and meta-representational negation (Horn 1985, Carston 1999). The latter includes metaconceptual negation (refuting the content of an existing representation) and the metalinguistic negation (refuting the linguistic form of an existing representation) (Noh 1998, Albu 2017,

Moeschler 2019, Zuo 2020). The meta-representational negation has no truth-conditional contribution, as shown in the following example:

- (9) (a) Descriptive negation
It's a beautiful day. There is no cloud in the sky.
(b) Metaconceptual negation
A: She is happy.
B: She is not happy. She has a problem with her husband these days.
(c) Metalinguistic negation
I am not happy; I am ecstatic.
(Noh 1998)

Only (9a) is truth-conditional, as it describes the objective world. (9b–c) echo another representation and add a refutative attitude toward its propositional content (e.g. 9b) or form (e.g. 9c) at the meta-representation level, thus having no truth-value contribution (Albu 2017, Zuo 2020).⁸

The ability of meta-representation allows one to infer the communicator's intention: based on an ostensive stimulus, the addressee will construct a hypothesis about the speaker's meaning, which satisfies the presumption of relevance conveyed by the utterance (Wilson 2002). An input is relevant to an individual when the processing in a context of available assumptions yields positive cognitive effects, which include 'strengthening of the existing assumptions', 'contradiction and elimination of the existing assumptions' and 'derivation of a contextual implication'. The process of producing positive cognitive effects is also involved in the studies of opposition relations. Blakemore (1989) suggests that *but* means 'and + something else'. This 'something else' is non-truth-conditional and related to how the interpretation of the *but*-conjunct contributes to the relevance, which varies in adversative and contrast. This study proposes that different opposition relations trigger various processes to positive cognitive effects, which will be discussed in Section 4.

3.2. Three conceptual domains

When examining opposition relations, Sweetser's (1990) three domains are also under-applied, despite not being a novel concept.

According to Sweetser (1990: 76), a single semantics is pragmatically applied in different ways according to pragmatic context. 'We model linguistic expression itself not only as a description (a model of the world), but also as action (an act in the world being described), and even as an epistemic or logical entity (a premise or conclusion of our world of reasoning)' (Idem: 21). In this respect, a connective does not have multiple semantic values, but has meanings so general that they apply equally to the conceptions of content, epistemic and speech act domains, among which only the content domain has a truth-value contribution. The adversative *but* provides support for Sweetser's (1990) three domains, as shown in the following example:

- (10) (a) John keeps six boxes of pancake mix on hand, but he never eats pancakes.
(b) King Tsin has great mu shu pork, but China First has excellent dim sum.

⁸ The three negations in (9) correspond respectively to Ducrot's (1984) 'descriptive negation, polemical negation, and metalinguistic negation'. The latter two refute its positive counterpart rather than describing SOA.

But in (10a) is interpreted in the epistemic domain because it is derivable from *John keeps six boxes of pancake mix on hand* that ‘John likes pancakes’, which is contradictory with the subsequent conjunct *he never eats pancakes*. As for (10b), suggesting eating in King Tsin and suggesting eating in China First are two speech acts that cannot be accepted at the same time, resulting in discordance. It is argued that the adversative *but* never appears in the content domain because it is hard to figure out how a discordance exists outside of the speaker’s mental concept of harmony or non-contrast (Sweetser 1990: 104). However, the ‘ambiguity’ of the opposition connective – not only in adversative but also in corrective and contrast – is more intricate than what Sweetser (1990) addresses, which will be shown in the rest of this study.

In summary, RT and ‘three domains’ can be further explored to explain opposition relations, and not all opposition relations have been studied in previous research employing these two theoretical frameworks. This study will add a new perspective to investigate the opposition relations as well as the two lexicalizing systems in Classical and Modern Chinese.

4. The Opposition Relations as Representation or Meta-Representation

Within RT, this section will explore the mental representations of the three opposition relations and the inferences they trigger to produce cognitive effects.

4.1. The opposition relations as meta-representation or representation

The dichotomy of representation and meta-representation first allows distinguishing the contrastive relation from the adversative and corrective relations. The contrastive conjuncts describe two SOA that are not contradictory. For instance, *born of misery* and *died of happiness* in (1a) are two SOAs that do not contradict one another in the real world. Reversing the two descriptions of SOAs or omitting a connective does not change the meaning of the sentence. Therefore, by describing two coexisting SOAs, the contrastive conjuncts form a lower-order representation, which is truth-conditional. Adversative and corrective, however, indicate the higher-order meta-representation because they represent another representation and express a refutative attitude toward it.

Even though they both exist at the level of meta-representation, the lower-order representations that the adversative and corrective relations reject could be different. The three categories of lower-order representation identified by Wilson (2000: 414) are utterances (public representations), thoughts (mental representations) and sentences or propositions (abstract representations). The adversative conjunct contradicts the implied conclusion of the preceding conjunct, which is typically expressed in an attributed thought, as shown in the following example:

- (11) (a) Jia zhouji zhe fei neng shui ye, er jue jianghe.
 use boat aux. NEG can swim SFP but pass river
 ‘Some people are not proficient swimmers, but they traverse the Yangtze and Yellow Rivers with the use of boats.’ [Classical Chinese]
 (*Xunzi, quanxue* ‘An Exhortation to Learning’)
- (b) Zhangsan mai-le henduo dangao, danshi ta bu
 Zhangsan buy-PFV many cake but 3SG NEG

chi dangao.

eat cake

‘Zhangsan bought many cakes, but he never eats cake.’ [Modern Chinese]

In (11a), *fei neng shui ye* ‘some people are not proficient swimmers’ implies that ‘they cannot traverse the river’. This implicature is attributed to the speaker as a thought, which is immediately refuted by *jue jianghe* ‘traverse the Yangtze and Yellow Rivers’. Likewise, from *Zhangsan mai le henduo dangao* ‘Zhangsan bought many cakes’, the addressees will attribute the thought ‘Zhangsan likes eating cakes’ to the speaker, which is refuted by the adversative conjunct ‘but he never eats cake’. In brief, the adversative conjunct refutes the ‘thought’ (mental representation) implicated by the preceding conjunct.

In contrast, the corrective conjunct can refute the existing representation embodied either in an attributed thought or in an attributed utterance, as shown in the following examples:

- (12) (a) Zidashu yue : Ruo siguo he? [Classical Chinese]
 Zidashu said how neighbor.country what
 Zidashu said: ‘What does that make our neighbor countries think of us?’
 Cichan yue: Fei xiang wei-ye, er xiang cong ye,
 Cichan said: NEG mutually disobey-SFP but mutually obey SFP
 siguo he you yan?
 neighbor.country what accuse INTER
 ‘Cichan said: I do not set the rulers and subjects against each other, but make them obedient to each other; what can the neighboring countries accuse us of?’
 (*Zuozhuan* ‘The Commentary of Zuo’)
- (b) A: Zhangsan xihuan yinyue. [Modern Chinese]
 Zhangsan like music
 ‘Zhangsan likes music.’
- B: Zhangsan bu shi xihuan yinyue, ershi re’ai yinyue.
 Zhangsan NEG MET like music but adore music
 ‘Zhangsan does not like music; he adores it.’
 (Zuo 2020: 126)

In (12a), the refuted representation is embodied in a thought – namely, ‘You set the rulers and subjects against each other’. Zichan attributed this thought to his interlocutor Zidashu because Zidashu’s question ‘What does that make our neighbor countries think of us?’ had a conversational implicature: ‘The neighboring countries would criticize us for dividing the rulers and subjects (by granting a fief to a minister)’. In (12b), what is refuted is an utterance (public representation). This utterance is refuted not because it is false at the level of representation but because the speaker finds it nonassertable at the level of meta-representation. To be more precise, for the speaker, the term *xihuan* ‘like’ is not appropriate to describe Zhangsan’s fascination with music. In this respect, a corrective conjunct (COR) is provided to indicate the meta-representational nature of the negative conjunct (NEG); otherwise, NEG will be regarded in default as an ordinary negation: *Zhangsan does not like music*.

According to the semantic study of Ludovico (2016: 125), ‘in corrective contexts, what is expressed in the first conjunct is not true, while the second conjunct is true under the same

circumstances'. Dissociated from this point of view, this study argues that NEG and COR are both at the level of meta-representation, making no truth-conditional contribution. The meta-representational nature can be revealed by the negative marker *bushi* in Modern Chinese (Zuo 2019, 2020):

- (13) *Zhangsan bu xihuam yinyue, ta re'ai yinyue.
 Zhangsan NEG like music 3SG adore music
 'Zhangsan dislikes music; he adores it.'

When *bushi* in (12b) is changed to *bu*, negative marker for descriptive negation, the two conjuncts are contradictory because *bu xihuan* (不喜欢) 'Neg + like' must be interpreted as *dislike*, which excludes all the elements higher than *xihuan* 'like' in the quantitative scale < neither dislike nor like, like, adore, addictive... > and blocks the metalinguistic interpretation. In languages like English and French, [NEG + GOR] can focus on the negated element and allow the metalinguistic interpretation. However, in Modern Chinese, 'negative marker + gradual predicate' must be interpreted as an integration (Lü 1999, Zhao 2007) and cannot allow the metalinguistic interpretation.

Zhao (2007) suggests that the copula *shi* functions as a focus marker, which restricts the scope of the negation to the element being denied. That is why the metalinguistic negation of a gradual predicate must use *bushi* as a negative marker rather than *bu* or *mei*, as shown in (12b).⁹ However, Zuo (2017, 2020, 2021) contends that the purpose of *shi* is to denote echoic use rather than to concentrate on a single element. There are three reasons: First, even if *shi* is present in NEG, COR is still needed to identify the negated element, especially in a verb-object locution. Compare the metalinguistic negation in (12b) and the metaconceptual negation in (14):

- (14) Zhangsan bu shi xihuan yinyue, ershi xihuan huihua.
 Zhangsan NEG MET like music but_{SN} like painting
 'Zhangsan does not like music, but like travel.'

Although *shi* appears in NEG, it is still not sure which element, *like* or *music*, is negated and corrected. That is why addressees will always expect additional information when hearing a *bushi*-negation (Shen 1993).

Second, as a focus marker, *shi* should always precede the focused element. If the negated element had no syntactic position, there would be no location for *shi* in this sense, but this is not the case, as shown in the following example:

- (15) Bu shi yuyan bien-le shi ren gaibian-le yuyan.
 NEG MET language change-PFV MET man change-PFV language
 'It is not that the language changed, but the human being changed the language.'
 (Zuo 2020: 125)

(15) refutes the perspective of the speaker, which has no specific syntactic position, but *shi* is still present.

⁹ When a metalinguistic negation contains a copula *shi*, there is no need to add another *shi* as meta-representational marker, as shown in (34).

Third, it has been argued by previous studies that the negative utterance employing *bushi* as a negative marker negates an antecedent representation (Teng 1978, Yeh 1995). In fact, in Modern Chinese, different negative markers can distinguish metaconceptual negation from descriptive negation, as shown in the following example:

- (16) Zhangsan bu xihuan yinyue, ta/er xihuan huihua.
 Zhangsan NEG like music 3SG/and like painting
 ‘Zhangsan does not like music, but/he likes painting.’

Different from (14), the negative marker in (16) is *bu*, indicating that it is a descriptive negation. The two conjuncts in (16) describe two SOAs considered to be contrastive or additive. When the second conjunct is interpreted as an additive conjunct, the connective should be replaced with the anaphoric pronoun (i.e. *ta* ‘he’ in (16)). Based on the three arguments mentioned above, Zuo (2019, 2020) proposes that *shi* marks that the utterance is to be treated at the meta-representational level. In this view, the metaconceptual *bushi* A *ershi* B, as in (14) and (15), is non-truth-conditional, although it refutes the content of A instead of its linguistic form.

In conclusion, the adversative connective refutes a representation inferred from an existing conjunct, which is always embodied in thought. The corrective connective refutes the propositional form or the content of an existing representation embodied either in thought or utterance. They are both at the meta-representational level and not truth-conditional. In addition to this difference, the adversative and corrective relations also differ in the process to yield cognitive effects, which will be presented in 4.2.

4.2. Production of cognitive effects

Both the adversative conjunct and the corrective conjunct yield positive cognitive effects by contrasting and eliminating an existing assumption (Blakemore 2000, Iten 2005, Moeschler 2018, Zuo 2019), but they trigger different processes: the former eliminates the existing assumption by directly providing a contradictory new information, whereas the latter contradicts it through the process [NEG + COR]. Compare B1 and B2 in (17):

- (17) A: Wo kandao-le Zhangsan de san ge erzi.
 1SG see-PFV Zhangsan poss. trois CL son
 ‘I saw his three sons.’
- B₁: **Danshi** ta you si ge erzi.
but_{PA} 3SG have four CL son
 ‘But he has four sons.’
- B₂: Ta bu shi you san ge erzi, **ershi** you si ge.
 3SG NEG MET have three CL son **but_{SN}** avoir four CL
 ‘He does not have three sons, but four.’

A’s utterance implies that Zhangsan has only three sons. B₁ eliminates this implication by directly providing contradictory information (*he has four sons*) and B₂ first refutes A’s utterance by pointing out its inappropriateness and then provides new information. Both the

adversative conjunct and the corrective conjunct provide new information that eliminates the existing assumption, but they do not trigger the same inference process.

Restriction and contrasting evaluations also eliminate an existing assumption by directly providing contradictory new information, as shown in the following example:

- (18) Ta hen ke'ai, danshi lue youdian lansan.
 3SG very cute but slightly a.little lazy
 'She is cute, but a little lazy.'
 (He 2016)

'I like her', derived from *she is cute*, is restricted by 'I don't like her that much', derived from *but a little lazy*. (18) can also be understood as two contrasting suggestions: *she is cute*, so you should marry her, but *she is a little lazy*, so you should not marry her. The second conjunct eliminates the assumption that the first conjunct activates by providing contradictory new information.

Malchukov (2004) proposes that mirative differs from adversative in that the event denoted by the second conjunct is unexpected in its own right, without any relation to the first one. Dissociated from Malchukov (2004), this study believes that the initial conjunct still has an impact on the unexpectedness in mirative. According to RT, the interpretation of an utterance depends on the person's cognitive environment, which includes short-term memory, medium-term memory, long-term memory (logical, encyclopedic and lexical information on concepts) and the physical environment in which communication occurs (Sperber & Wilson 1995). In denial of expectation, the assumption eliminated by the adversative conjunct is inferred mainly based on short-term memory activated by the first conjunct, whereas in mirative, the eliminated assumption was primarily activated through long-term memory, as shown in the following example:

- (19) (a) Denial of expectation:
 Ta zhuangdao-le yi kuai da shitou, danshi meiyou shuaidao.
 3SG bump.into-_{PFV} one CL big rock but NEG fall
 'He bumped into a big rock but he did not fall.'
- (b) Mirative:
 Ta kaishi paobu, danshi turan shuaidao-le.
 3SG start run but suddenly fall-PFV
 'He started to run but suddenly fell.'
 (Tan 2016b: 53)

In (19a), 'bump into a rock' and 'fall' are causally related, so 'he didn't fall' is unexpected based on people's short-term memory created by the first conjunct. In (19b), there is no causal relation between 'run' and 'fall'. The second conjunct is unexpected given the interlocutors' encyclopedic knowledge that people normally do not fall when they run. However, the first conjunct still activates the information *he will not fall*, making *he fell* unexpected. According to Sperber and Wilson (1995), based on an ostensive stimulus, the addressee will follow the path of least effort when assessing cognitive effects and stop when their expectations of relevance are satisfied. The most relevant interpretation of *he started to run* should be *he started to run in an ordinary situation* because it requires the least effort.

If the first conjunction indicates or implies that the subject runs on a rope or during a storm, it is very possible that the subject will fall, and the second conjunction is not unexpected.

In a nutshell, in denial of expectation, restriction, contrasting evaluation and mirative, the conjunct introduced by *danshi* creates positive cognitive effects by offering new information that eliminates an existing assumption implied by the first conjunct. This common process allows them to be grouped into the adversative relation.

The analysis within RT also explains the distinction between contrastive, adversative and corrective relations and the connections between adversative and corrective relations. To further explain the connections of all three opposition relations, I will examine them in the ‘three domains’.

5. Oppositions in the ‘Three Domains’

In addition to Sweetser’s (1990) analysis of the adversative *but*, this present study includes some novel ideas: On the one hand, I argue that the adversative relation interpreted in the speech-act domain is also involved in the epistemic domain because the ‘clash’ between two speech-acts cannot be detected without any reasoning based on epistemic beliefs. On the other hand, I assume that contrastive and adversative relations have a certain connection in cognitive domains where they are interpreted, which may explain why they can both be represented by *er* in classical Chinese and why some studies think the contrastive *er* in Modern Chinese also represents the adversative relation. These two points will be examined in the analysis that follows.

5.1. The content domain

Two conjuncts in contrastive relation describe two coexisting and comparative SOAs, as shown in the following example:

- (20) (a) She sheng er qu yi zhe-ye. [Classical Chinese]
 give.up life and take righteousness those.who-SFP
 ‘Those who give up their lives and take righteousness.’
 (*Mengzi* ‘Mencious’)
- (b) Pingguo da er bu tian. [Modern Chinese]
 apple big and NEG sweet
 ‘These apples are big and not sweet.’

In (20a), *shesheng* ‘give up their lives’ and *quyi* ‘take righteousness’ are two coexisting SOAs. They are semantically oppositive (*give up* A vs. *take* B) but not contradictory. Similarly, the two SOAs in (20b) are also not contradictory, although they are semantically oppositive (affirmative *big* vs. negative *not sweet*). Therefore, (20) falls under the content domain with a truth-value contribution. Both in Classical Chinese and in Modern Chinese, *er* connects two SOAs and presents their contrastive relation in the content domain. The next question is whether *er* is used as adversative connective in Modern Chinese. What distinguishes two conjuncts joined together by *er* from the same conjuncts joined together by *danshi*? For instance, only the connective distinguishes (21) from (20b):

- (21) Pingguo da, danshi bu tian.
 apple big but NEG sweet
 ‘These apples are big, but they are not sweet.’

Danshi requires the construction of a contradictory relation between two conjuncts, which moves the propositions from the content domain to the epistemic domain. As in (21), *danshi* can be considered to connect two contradictory comments: ‘these apples are good’ because *they are big* and ‘these apples are not that good’ because *they are not sweet*. *Danshi* may also connect two suggestions: ‘buy these apples’ because *they are big* and ‘do not buy the apples’ because *they are not sweet*. More information about this problem is provided in the section below.

5.2. The epistemic domain

A reasoning process based on epistemic beliefs is necessary in the interpretation of adversative conjuncts, as clarified by Sweetser (1990):

- (22) (a) We didn’t enjoy the day because the weather was awful.
 (b) John is rich and dumb.
 (c) John is rich but dumb.
 (Sweetser 1990)

In (22a), the causal relationship between awful weather and not having fun exists in the social-physical world. In (22b), a person can be both rich and stupid at the same time in the real world. Therefore, (22a) and (22b) show the use of *because* and *and* in the content domain. They are both instances of the description of SOAs, which have a truth-value contribution. However, ‘if two states coexist in the real world, then they cannot be said to clash at a real-world level’ (Sweetser 1990: 104). In (22c), ‘John is rich’ and ‘John is dumb’ coexist in the social-physical world, so they clash only in the epistemic domain: rich people are generally smart (smartness is often the reason why people become rich), but John is stupid. This ‘denial of expectation’ is realized through reasoning, based on the epistemic experience. Along this line, a process of reasoning is indispensable in adversative. If no adversative relation can be constructed, *danshi* and *er* are not interchangeable, as in (23):

- (23) Preston tianqi zui shirun, er (*danshi) Ashford tianqi zui
 Preston weather SUPER wet and (*but_{PA}) Ashford weather SUPER
 ganzao.
 dry
 ‘The wettest weather has been in Preston and (*but) the driest weather has been in Ashford.’
 (Translated from Example (34) in Blakemore 2002: 100)

The adversative varies in degree. As mentioned in 2.1, some Chinese studies have classified adversative relations (*p danshi q*) into contradiction, denial of expectation and restriction, ranging from the strongest to the weakest (Xing 1992, 2002, He 2016). In denial of expectation, it is necessary to draw *r* from *p*, but not necessary to draw $\neg r$ from *p*. As

shown in (19a), from p ‘he bumped into a rock’, one can conclude r ‘he fell’, which is directly contracted by q ‘he did not fall’.

The ‘restriction’ in previous Chinese studies, which is considered to represent the weakest adversative relation, includes also contrasting evaluations (Xing 1992, Shi & Sun 2010, He 2016). This study holds that contrasting evaluations are most likely to represent the weakest adversative relation because it is necessary to draw r from p and $\neg r$ from p , and a special context is often needed to construct the adversative relation, as shown in the following example:

- (24) Suiran gua feng-le, danshi xiayu-le.
 although blow wind-CRS but rain-CRS
 ‘It is windy, but it rains.’
 (Shen 2003: 199)

In an ordinary context, (24) appears illogical: wind and rain usually come together. It is thus hard to construct an adversative relation between *it is windy* and *it rains* in the epistemic domain. However, imagining that a director wants to film a scene on a sunny windy day, (24) can be interpreted as two contradictory speech acts: *let’s begin shooting as it is windy* and *keep waiting until the rain stops*. Given an appropriate context, even (23) can move from the content domain to the epistemic domain:

- (25) A: The wettest weather has been in Preston, the driest weather has been in Newcastle, right?
 B: Budui. Preston tianqi zui shirun, danshi Ashford tianqi
 Incorrect Preston weather SUPER wet but Ashford weather
 zui ganzaao.
 SUPER dry
 ‘No. The wettest weather has been in Preston, but the driest weather has been in Ashford...’

If (25B) is a response to the question in (25A), the first conjunct implies ‘you are right’ (because *the wettest weather has been in Preston*), whereas the second conjunct implies ‘you are wrong’ (because *the driest weather has been in Ashford*); these two answers are contradictory and thus connected by *danshi*. The adversative between two responses is constructed through reasoning; therefore, (25B) crosses over the epistemic domain and the speech-act domain.

Now, we see how the contrastive relation and the adversative relation are connected: without any reasoning based on the epistemic knowledge, two conjuncts in weak adversative in the epistemic domain can also be interpreted as a description of two comparative SOAs in the content domain. This is why *danshi* can sometimes be replaced by *er* in Modern Chinese. If the two conjuncts are connected by *danshi*, it is indispensable to draw contradictory conclusions from them, and the conclusion drawn from the second conjunct is semantically dominant, as it eliminates the first one. The weakest adversative relation is often interpreted both in the epistemic domain and in the speech-act domain, as shown in (24) and (25). A special context is needed to construct the weakest adversative relation. In fact, the more this context is accessible, the more the adversative relation is evident. In (26), the contrastive *er* is assumed to be adversative *er* in Classical Chinese since the context supports the adversative reading.

- (26) Da er wu dang, wang er bu fan. [Classical Chinese]
 big and without edge go and NEG return
 ‘There is no edge to his big talk, and once he goes on, he cannot get back to the original topic.’
 (Zhuangzi, *Xiaoyaoyou* ‘Enjoyment in untroubled ease’)

Big and *no edge, go* and *return* are coexisting SOAs in the content domain, but it is easy to put them in conflict since people frequently put positive and negative remarks about a person in opposition: it is good that he can develop and present his opinions, but it is not good that he does not put an end to his talk. As mentioned above, this weak adversative relation often represents contracting evaluations. Facing two coexisting SOAs, it is our epistemic experience that drives us to build an adversative relation in the epistemic domain. *Danshi*’s diachronic development can support this claim:

- (27) (a) Restrictive adverb (dan) + verb (shi):
 Wan hang bu chu Liu boluomi, Chan men **dan shi** liu
 ten.million seed NEG surpass six Paramitas Zen gate **only is** six
 zhong zhi yi
 among aux. one
 ‘No deed can surpass the six Paramitas, Zen is only one of the six.’
 (*Chanyuan quanxu* ‘Preface to the Collection of Zen Sources’)
- (b) Restrictive adverb (*only*):
 Kongzong zhi yan **danshi** zhequan,
 Void.School aux. words **only** explain.through.exclusion
 xingzong zhi yan you zhe you biao.
 Nature.School aux. words have exclusion have definition.
 ‘The Void School only explains things through exclusion; the Nature School includes both exclusion and definition.’ (Idem)
- (c) Adversative connective (*but*):
 Yi Jia zhizhong, zun zhe ke weijing, **danshi** you
 one family among honored NMLZ can be.in.awe **but** have
 budangchu, yi he you ji jian shi.
 wrong also should have some admonition time
 ‘In a family, everyone is in awe of the honored one, but if he or she does something wrong, there may also be some dissuasions.’
 (*Zhuzi yulei* ‘Thematic discourses of Master Zhu’)

As shown in (27a), *danshi* originally represented ‘only be’, which then developed into the adverb ‘only’ in (27b). As indicated by Wen and Zeng (2018), the lexicalization of the adverb *danshi* marginalizes the previously central meaning *just/only* and highlights the previously marginal ‘slight twist’. This ‘slight twist’ is essentially a contrast. The two conjuncts in (27b) represent two contrastive SOAs; given a context, such as the question ‘Do the Void school and Nature school both explain things through exclusion?’, an adversative relation can be established between the two conjuncts in (27b). Due to its frequent use in contexts where both contrastive and adversative readings are discernible, the adverb *danshi* has evolved into an adversative connective that denotes varying degrees of adversativity. As shown in (27c),

the *danshi*-conjunct can represent a restriction to the first conjunct: one should be in awe of the honored one, but not always. It can also be interpreted as a denial of expectation: people generally do not point out the flaws of the person they respect, which the second conjunct denies.

It is also notable that the ambiguous *er* in (26) is different from that in (2). In the latter case, it is just essential to deduce *r* (*indigo blue should be less blue than the indigo plant*) from *q* (*indigo blue is extracted from the indigo plant*); *r* and *p* (*but it is bluer than the plant*) will immediately contradict each other. Therefore, *er* in (2) is unambiguously adversative because no contrastive relationship can be built. Likewise, in Modern Chinese, the adversative connective *danshi* cannot be replaced with the contrastive connective *er* if there is no contrastive relationship existing between the two conjuncts, as shown in (19).

Whereas contrasting evaluations are the weakest adversative relation, the contradiction is the strongest adversative. According to Xing (2002: 45–57), ‘contradiction expresses two SOA that coexist in the real world and are opposed to each other’, as shown in the following example:

- (28) Tamen liangge he tongshi dou bu renshi, danshi you haoxiang
 3PL both with colleagues all NEG know but ADV likely
 dou renshi, erqie hen shuxi.
 all know even very familiar
 ‘They don’t know any of the colleagues, but they feel like they know all of them and even very familiar with them.’
 (He 2016: 106)

In the contradiction ‘*q* *danshi* *p*’, *q* is almost equal to $\neg p$, so the reasoning processes from *q* to *r* and from *p* to $\neg r$ both seem to be dispensable. This situation, in which the two SOAs coexist and clash in the real world, seems to be overlooked by Sweetser (1990). However, how can two SOAs coexist and be contractionary at the same time? It is obvious that statements like ‘I saw him, and/but I did not see him’ are unacceptable. According to this study, contradictions always require a reasoning process. For instance, in (28), *q* (*they feel like knowing all the colleagues*) implies that ‘they just feel knowing them, but not really know them’, and it is contradictory with *r* ‘they cannot feel like knowing them’, which is derived from *p* (*they don’t know any of the colleagues*). Compare (29a) and (29b):

- (29) (a) *Women renshi, danshi women bu renshi.
 1PL know but 1PL NEG know
 ‘We know each other, but_{PA} we do not know each other.’
 (b) Wo renshi ta, ta renshi wo, danshi women bu renshi.
 1SG know 3SG 3SG know 1SG but 1PL NEG know
 ‘I know her, and she knows me, but we do not know each other.’

The coexistence of ‘we know each other’ and ‘we do not know each other’ in (29a) is unacceptable because they directly contradict each other. In contrast, in (29b), ‘we know each other’ is implied rather than explicitly stated, allowing hearers to distinguish between ‘I know her, and she knows me’ and ‘we know each other’. (29b) makes sense when hearers understand that ‘we know each other’ suggests that we have profound communication, as

opposed to ‘I know her, and she knows me’, which implies ‘we do not have any profound communication’. In short, contradiction is not a description of two contractionary SOAs in the real world. It is interpreted in the epistemic domain since it still requires a reasoning process.

In brief, the adversative relation is interpreted in the epistemic domain, where a reasoning process is required. When it is necessary to deduce r from p and $\neg r$ from q , the adversative relation is weak. If there is no appropriate context, the two conjuncts may be read as contrastive. In the contrasting evaluations, the utterance is not only interpreted in the epistemic domain but also in the speech-act domain. In the next section, I will provide another instance of the adversative relation that is interpretable in the speech-act domain.

5.3. The speech-act domain

Shen (1993) and Shi and Sun (2010) propose an adversative *danshi* that could be interpreted in the speech-act domain but has not been addressed by Sweetser (1990), as shown in (30):

- (30) Ta jianfei chenggong-le, danshi weishenme nenggou chenggong ne?
 3SG lose.weight succeed-PFV, but_{PA} why can succeed INTER
 ‘She succeeded in losing weight, but how did she manage it?’
 (Shi & Sun 2010: 36)

The most common answer to ‘she succeeded in losing weight’ should be expressing astonishment, congratulations or compliments, but (30) instead asks a question, violating the assumption of what others will say about her success. As a result, (30) is interpreted both in the epistemic domain and speech-act domain.

Corrective relation is different from the cases involving both the epistemic domain and speech-act domain – such as (30) and the contrasting evaluations in (24) – as it does not involve any reasoning process and is interpreted only in the speech-act domain. As stated in previous sections, NEG in correction refutes an existing representation rather than describing SOA; hence, it should be a sentential negation. As indicated by Anscombe and Ducrot (1977), the speaker presents COR as a justification, which does not necessarily require that COR logically implies the falsity of the positive counterpart of NEG. For instance, *bushi xihuan yinyue* ‘NEG + like music’ in (12B) is interpreted either as ‘less than like’ or ‘more than like’ because *xihuan yinyue* ‘like music’ is refuted as an inappropriate expression, not a false proposition. This is why the negative marker must be the *bushi*, which marks the echoic use.

Prior research has shown that NEG and the succeeding COR can only appear in a single statement of one speaker, which is supported by the fact that the syntactic component that the negative and corrective conjuncts share must be dropped (Anscombe & Ducrot 1977; Shen 1993; Iten 2005). According to this viewpoint, COR is not an independent utterance, but is just a justification of the preceding refutation of an existing representation. Therefore, NEG and COR should be interpreted as an integration in the speech-act domain.

By far, I have investigated how the three opposition relations differ from one another as well as the connections between contrast and adversative relations and adversative and

corrective relations, respectively. I will now examine the connections between contrast and correction based on Chinese data. Corrective relation has been considered as ‘contrastive negation’ (Silvennoinen 2019), suggesting that contrast and corrective are interconnected in some way. I contend that the corrective connective connects two meta-representations that coexist in the speech-act domain, just as the contrastive relation describes two SOAs that coexist in the content domain, as shown in the following example:

- (31) A: Zhangsan shi Beijing lai-de.
 Zhangsan be Beijing come-aux
 ‘Zhangsan is from Beijing.’
- B₁: Ta bu shi Beijing lai-de.
 3SG NEG be Beijing come-aux
 ‘He is not from Beijing.’
- B₂: Ta shi Tianjin lai-de.
 3SG be Tianjin come-aux
 ‘He is from Tianjin.’

B₁ and B₂ both refute A’s utterance and point out its flaws: B₁ refutes it explicitly with a negative proposition, and B₂ implies its opposite through a positive proposition. Their coexistence in the speech-act domain and their ability to be reversed without altering the meaning of the utterance serve as the first examples of their contrastive relation, as shown in (32):

- (32) (a) Ta bu shi Beijing lai-de, ta shi Tianjin lai-de.
 3SG NEG be Beijing come-aux. 3SG is Tianjin come-aux.
 ‘He is not from Beijing; he is from Tianjin.’
- (b) Ta shi Tianjin lai-de, ta bu shi Beijing lai-de.
 3SG is Tianjin come-aux. 3SG NEG is Beijing come-aux.
 ‘He is from Tianjin; he is not from Beijing.’

Furthermore, the contrastive relation and the corrective relation may both be emphasized or not. In the content domain, if the contrast is not emphasized, the conjuncts can be connected by a comma instead of *er*. Compare (33) and (4):

- (33) Ni guanxin zhege shijie, women guanxin ni.
 2SG care DEM world 1PL care 2SG
 ‘You care about the world; we care about you.’

(33) places less emphasis on the contrastive relation than (4). Similarly, in the speech-act domain, (32a) and (34) are both acceptable; however, (32a) favors the corrective information, whereas (34) draws attention to the contrast between ‘not come from Beijing’ and ‘come from Tianjin’:

- (34) Ta bu shi Beijing lai-de, ershi Tianjin lai-de.
 3SG NEG be Beijing come-aux. but_{SN} Tianjin come-aux.
 ‘He is not from Beijing, but from Tianjin.’

The data of Modern Chinese confirm the metaphorical relationship between contrast and corrective: the connective representing contrast is *er*, whereas the connective representing corrective is *ershi*. The latter has just one more character *shi* than the former. As presented in 4.1, *shi* serves as the marker of echoic use, indicating that the utterance should be interpreted in the speech-act domain instead of the content domain. In this view, the difference between *er* and *ershi* in Modern Chinese is that the latter is used in the meta-representational level and the speech-act domain, implying that correction is the metaphorical mapping of contrast from the content domain to the speech-act domain.

In sum, based on the ‘three domains’, the contrastive relation is between two truth-conditional descriptions of SOAs in the content domain. The adversative relation is interpreted in the epistemic domain or in both the epistemic domain and the speech-act domain. The corrective relation is always interpreted in the speech-act domain. Each of these three opposition relations has a connection to the other two: in a particular context, the contrastive relation can be moved from the content domain to the epistemic domain and understood as a weak adversative relation. The adversative and corrective conjuncts are both exhibited in the cognitive domains which are non-truth-conditional.¹⁰ The corrective relation is the mapping of the contrastive relation in the speech-act domain.

6. Conclusions

Combining the finding in the three cognitive domains and RT, the conceptual domain and representational level in which the three opposition relations are located are illustrated in Table 2.

The distinctions and connections of the contrastive, adversative and corrective relations could be summed up as follows:

- 1) Distinctions: contrast, adversative and corrective are interpreted respectively in the content, epistemic and speech-act domains. Contrast appears at the level of representation, whereas the two others appear at the level of meta-representation. The adversative and corrective also differ in the nature of the refuted representation and in the process of producing cognitive effects.
- 2) Connection 1: adversative and corrective are both meta-representational and non-truth-conditional, and yield cognitive effects by eliminating an existing assumption.

Table 2. Locations and truth conditions of the opposition relations

Location / truth-value	Representation content domain truth-conditional	Meta-representation epistemic domain non-truth-conditional	Meta-representation speech-act domain non-truth-conditional
Contrast	✓		
Adversative		✓	
Corrective			✓ ✓

¹⁰Zufferey (2010) also argued that the epistemic domain (‘metacognitive use’ in her term) and speech-act domain (‘metacommunicative use’) represent interpretative uses (i.e. at the meta-representational level of communication).

- 3) Connection 2: given a particular context, two contrastive SOAs in the content domain could be perceived as contractionary. In this case, the conclusions inferred from two comparative conjuncts could construct a weak adversative relation and be interpreted in the epistemic domain.
- 4) Connection 3: there is a contrast between two conjuncts in both the contrastive relation and the corrective relation. These conjuncts are either representations of two coexisting representations in the speech-act domain or descriptions of two coexisting SOAs in the content domain.

I suggest that the distinctions summed up in 1) may explain the different lexical actualizations of the opposition relations in Modern Chinese, whereas the conclusions 2)–4) could explain the unified lexical actualization in Classical Chinese.

The cognitive-pragmatic framework proposed by this study may also account for the lexicalization(s) of opposition relations in different languages. Take the debate over the existence of ‘contrastive *but*’ as an example: based on the three domains, if two coexisting and contrastive SOAs are connected by *but* rather than *and*, they have formed a weak adversative relation in the epistemic domain. In this case, *but* does not represent contrastive any longer. In this perspective, only adversative *but* and corrective *but* exist. The ‘contrastive *but*’ is essentially the adversative *but* that reveals the weakest adversative relation. The so-called *but*-contrast is essentially different from the *and*-contrast, as the latter does not involve any reasoning process.

Additionally, this work thoroughly examines the connections between various oppositions that appear in established semantic maps (as in Malchukov 2004 and Mauri 2008), including those between adversative and mirative relations (4.2), adversative and restrictive relations (5.2) and connective and contrastive relations (5.3), and test them with Chinese data. The pragmatic-cognitive analysis used in this study could be used to test more semantic findings in future studies.

To conclude, this study proposes a cognitive-pragmatic approach to delimit opposition relations in terms of what conceptual domain and representational level they are in and what inferences they trigger to yield cognitive effects. The lexicalization systems of Classical Chinese and Modern Chinese serve to support our investigations on the distinctions and connections of opposition relations. The cognitive-pragmatic explanation may increase the precision and predictability of opposition relation delimitation. It would also serve as a useful framework for future studies on ‘multiple functions-to-form mapping’.

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