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The Atelic *DE* and The Clefts of Mandarin *

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キーワード：Atelic, Clefts, Mandarin Chinese

無界相標識「的」と中国語の分裂文

本論文は、中国語における「的」構文、特に VdeO 構文における統語的制約とその表現機能について論じたものである。本論文は、VdeO 構文が無界相を表す要素であり、「的」が無界相を示す文法的標識として機能していることを明らかにする。また、VdeO 構文と VOde 構文を比較し、それぞれの構文における統語的違いと「的」の役割の差異を詳述した。

VdeO 構文の無界相的な特徴は、未来時制や否定詞、モダリティなど vP より上位に位置する要素を排除する点に表れている。この排除性は、「的」に過去や完了といった特徴があるためではなく、無界相的な出来事、すなわち時間的に明確な区切りを持たない事象の性質に起因している。この無界相的な性質により、VdeO 構文は進行相と習慣相の解釈において曖昧さを生じた。また、「的」の後に続く名詞には統語的制約が課され、この名詞は必ず [-Quantity] の特徴を持たなければならない。これに反する場合、構文は無界相の特性を失うか、非文となる。

本研究は、Borer (2005) および Travis (2010) の統語モデルを基盤に、「的」を無界相を示す内部相句 IAspP の主要部として位置付けた。この内部相句 IAspP は vP と VP の間に位置し、「的」がその制約的な分布を通じて統語的機能を果たしていることを示している。無界相的な事項では、動作や事件がどの瞬間でも同じであり、時間的に分割可能かつ累積可能であるため、瞬間と瞬間には区別がある有界的な事項と対比される。また、VdeO 構文の無界相的な事項は順序性を欠き、程度を表す修飾語との共起が見られないだけでなく、未来時制やモダリティによって修飾されることもない。

さらに、VdeO 構文と VOde 構文の統語的な相違についても分析した。両者はいずれも「的」を含むが、VdeO 構文では「的」の後に続く名詞に統語的および意味的制約が課される一方、VOde 構文ではこれらの制約がないため、より柔軟な統語的特性を持つ。結論として、本論文は VdeO 構文と VOde 構文が統語的に明確に異なるものであり、「的」の役割もそれぞれ異なることを示した。

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The Atelic *DE* and The Clefts of Mandarin¹

1. Introduction

The sentences in (1) illustrate genuine cleft constructions in English, where the element after the copula consistently receives contrastive focus. In (1a), the contrastive focus is *me*. Sentences such as (1b) and (1c), featuring the *shi...de...* construction in Chinese, are often considered their counterparts. (1b) and (1c) are viewed as two variants of the same sentence, with the contrastive focus being the element *wo* 'I' following the copula *shi*:

(1) a. It was me who found your key in the park.
 b. wo shi zaigongyuanli zhaodao de nidegou
 1SG COP in the park find out DE your dog.
 'It was in the park that I found your dog.'
 c. wo shi zaigongyuanli zhaodao nidegou de
 1SG COP in the park find out your dog DE
 'It was in the park that I found your dog.'

Genuine cleft constructions serve as a primary means of expressing contrastive focus, which is inherently exclusive, identifying the only entity that fulfills the conditions specified by the remainder of the sentence. In Chinese, however, contrastive focus can be triggered solely by the use of copula *shi*, which explains why (2a) and (2b) does not entail each other (Tsai 2004).

(2) a. shi Akiu he-le jiu
 COP Akiu drink-ASP wine
 'It was Akiu who drank the wine.'
 =

b. shi Akiu-he-Xiaodi he-le jiu
 COP Akiu-and-Xiaodi drink-ASP wine
 'It was Akiu and Xiaodi who drank the wine.'

¹ This paper is a revised and expanded version of the oral presentation at NACCL-36 in March 2024. I would like to thank two anonymous reviewers for their helpful comments on this paper, as well as the members of Cheese Linguistics for discussions on the legitimacy of the example sentences. All errors are attributed to me.

This indicates that the *de* in (1b) and (1c) is not directly related to contrastive focus, raising questions about its syntactic role. This paper specifically examines the *de* in sentences like (1b). Section 2 reviews two influential analyses of the *shi...de...* constructions in (1b) and (1c). I argue that in (1b), *de* functions as an aspect marker. Drawing on the frameworks of Borer (2005b) and Travis (2010), I propose that the *de* between the verb and the object in Mandarin marks the atelic aspect, *de* being an atelic aspectual marker of Mandarin, and this property accounts for many of the characteristics observed in previous studies. This aspect phrase, the inner aspect phrase (IAspP) is located between vP and VP, featuring the following syntactical structure:

(3) [_{vP} Subj [_v V+de [_{IAspP} Obj [IAsp' t_{de} [VP t_v]]]]]

2. The Aspectual Marker Analysis and State-of-Affair Sentence Analysis

I refer to the *de* construction in (1b) as the VdeO construction and the *de* construction in (1c) as the VOde construction. Some previous studies have noted that the VdeO construction cannot express future-related content. This observation led to the first type of analysis, proposed by Paul and Whitman (2008) and others, which views the *de* in the VdeO construction as a marker of tense or aspect. The second type of analysis, proposed by Yuan (2003) and Wan (2016), argues that both the VdeO and VOde constructions represent static facts, forming the so-called state-of-affair sentences.

2.1 The Aspectual Marker Analysis

Paul and Whitman (2008) observe that the VdeO construction does not permit elements such as negation, modals, tense/aspect markers, the universal quantifier *dou* 'all', or temporal adverbs that indicate future events. Specific examples are as follows:

(4) wo shi ¹(*mingtian) zaigongyuanli ²(*dou) ³(*mei) ⁴(*neng)
 1SG COP tomorrow in the park all haven't can
 zhaodao de nidegou
 find out DE your dog

Intended1: *It is tomorrow that I (would) found your dog in the park.*

Intended2: *It was in the park that I found all your dogs.*

Intended3: *It was in the park that I didn't find your dog.*

Intended4: *It is in the park that I can find out your dog.*

All these prohibited elements in the VdeO construction are located above vP. Based on this observation, Paul and Whitman (2008) argue that *de* functions as the head of the first projection above vP, specifically as the head of an outer aspect phrase (OAspP). The proposed construction is as follows:

(5) a. [_{TP} T [_{VP} shi [_{OAspP} jiejie [_{OAsp} kai+de [_{vP} t_{jiejie} [_v v [_{VP} t_v men]]]]]]]]]
 b. shi jiejie kai-de men
 COP sister open-DE door
'It was the elder sister who opened the door.'

The inability of the VdeO construction to accommodate future-related content is attributed to the [Past] feature, which is said to be an inherent semantic property of *de*.

However, this analysis cannot account for the obligatory presence of a noun following *de*, as an external aspectual head does not impose any constraints on the internal argument of the VP. This would wrongly predict that VOde constructions formed with transitive or intransitive verbs should also be incompatible with negation or future-related elements.

In fact, only the VdeO construction requires a noun following *de*, although this noun is not necessarily the object. As long as a noun is present, it is subject to the restrictions shown in (4), such as the exclusion of future-related content. In contrast, the VOde construction is unrestricted, regardless of whether a noun is present at the end:

(6) a. linjulia shi yao si de ren
 neighbor COP would die DE person
Int: 'Someone in the neighbor's family would die.'
 b. linjulia shi yao si ren de
 neighbor COP would die person DE
'Someone in the neighbor's family would die.'

In the subsequent sections, I will explore additional constraints imposed by the VdeO construction on this noun.

2.2 The State-of-Affair Sentence Analysis

The term “state-of-affair sentence” was introduced by Yuan (2003) to describe sentences like the following, in which (7b) corresponds to the VdeO and VOde constructions under discussion in this paper:

(7) a. {shi} Xiaowang {shi} diyige tiao de.
 COP Xiaowang COP firstly jump DE
‘It was Xiaowang who jumped first.’

b. wo shi zai-Zhongshanlu shang {de} che {de}.
 1SG COP at Zhongshan Rd. up DE car DE
‘It was at Zhongshan Rd. where I got on the bus.’

Yuan (2003) did not provide a detailed definition of state-of-affair sentences but noted that they all contain focus and argued that *de* works together with *shi* to form a mechanism for marking focus.

Wan (2016) expanded on this idea by proposing that state-of-affair sentences are “sentences centered on verbs but used to communicate the state or properties of an event.” Based on this definition, the scope of state-of-affair sentences is broader than what Yuan (2003) described. For example, sentences without *shi* (8a) or *de* (8b) are also included as state-of-affair sentences:

(8) a. ni bu-bi duo zhufu, wo zhidao (de)
 2SG NEG-need many remind 1SG know DE
‘You don’t need remind me repeatedly, I just know it.’

b. meige haizi haoxiang dou shi ting you jingyan
 every child seemly all COP quite have experience
‘Every child seems to be quite experienced.’

Wan (2016) also summarized additional characteristics of state-of-affair sentences. Besides their inability to express future events, Wan observed that they cannot include numeral complements (9a) and that the *shi...de* construction in these sentences does not strictly mark focus, as the focus can lie outside the construction (9b). These characteristics suggest that state-of-affair sentences are not derived from event sentences

through the addition of the *shi...de* construction:

(9) a. *wo jinnian qu de sanci beijing (Kimura 2003)

1SG this year go DE 3 times Beijing

Int 'I have went to Beijing for 3 times this year.'

b. ta shi (sheng de) nanhai

3SG.FEM COP give birth DE boy

'It was a boy that she gave birth to.'

Wan (2016) argued that state-of-affair sentences parallel noun-predicate sentences, which describe the state or properties of entities. Regardless of whether they contain *shi*, these constructions do not allow bare nouns:

(10) wo (shi) chi de * (hong mi) fan

1SG COP eat DE red rice rice

Int (without 'hongmi') : 'It was rice that I had.'

Another piece of evidence given by Wan is that, a VP with *de* expressions that convey a state can independently serve as arguments:

(11) a. wo haishi ganjin liuzou de hao

1SG still immediately flee DE good

'It is wiser for me to flee at once.'

b. ta xin-li bi zhen zha de hai nanshou

3SG.FEM heart-inside than needle pierce DE even sad

'She felt even worser than being pierced by a needle on her heart.'

Regarding the nature of *de*, Wan (2016) argued that it is unrelated to the nominal nature of state-of-affair sentences and does not function to mark focus. Instead, this optional *de* is part of a reference-target structure (cf. Shen et al. 2000), attaching to a referential linguistic unit and directing attention from the referent to the subsequent target. This explains why in (8b), the sentence's focus, *nanhai* 'boy', follows *de*.

Wan (2016) did not distinguish between VdeO and VOde constructions, but the VdeO

construction indeed exhibits the state-of-affair nature described, as it communicates the state or properties of an event. In the following examples, (12a) expresses progressive aspect, while (12b) expresses habitual aspect. Both exhibit this state-of-affair quality:

(12) a. ni shou-li na de sha? kuai gei wo
2SG hand-in hold DE what quick give 1SG
'What are you holding in your hands? give it to me now!'

b. nijia yiban gei mao wei de sha
your family usually to cat feed DE what
'What do you usually feed with the cat in your family?'

However, failing to differentiate VdeO from VOde constructions cannot explain why only VdeO constructions face the various restrictions described in (4). Additionally, VdeO constructions, unlike VOde constructions, cannot function as arguments. For instance, in (13), the VdeO construction cannot serve as an argument of *xiaohua* 'laugh at' to produce the interpretation of *'They laughed at me on the fact that I bought some beef'*, while it is possible for the VleO construction:

(13) tamen xiaohua wo mai de/le niurou
3PL laugh at 1SG buy DE/ASP beef
with DE: 'They laughed at the beef I bought.'
with LE: 'They laughed at me on the fact that I bought some beef.'

Wan (2016) used (10) to argue that VdeO constructions share restrictions with noun-predicate sentences, suggesting a parallelism. However, this restriction may stem from the bare noun object itself rather than indicating that the VdeO construction is inherently nominal. For example, in (14), VdeO constructions can appear in coordinate structures such as *hai* 'even', which allow predicates but not nominal arguments. This suggests that VdeO constructions are not nominal arguments serving as predicates but rather predicates containing nominal arguments. This also indicates that these VdeO constructions are not relative clauses as they do not show the properties of nominals².

² (13) and (14) together indicates that the VdeO construction does not exhibit nominal characteristics, which means, it is a different entity from the structural particle *de*. From a grammaticalization perspective, the

(14) a. mai de yu hai mai de rou
 buy DE fish even buy DE meat
 ‘*Bought some fish, also bought some meat.*’

b. *yu hai rou
 fish even meat
 Int: ‘fish and meat’

c. mai yu hai mai rou
 buy fish even buy meat
 ‘*Buy fish, also buy meat.*’

3. Theoretical Framework

Based on our review of previous studies, we can summarize the key properties of the VdeO construction as follows:

(15) Properties of the VdeO construction:

- a. Excludes future events³ and elements above vP, such as negation and modals.
- b. Exhibits ambiguities between at least two readings: progressive and habitual aspects.
- c. Requires a noun following *de*, though this noun is not necessarily the object. The noun cannot contain quantificational information.

From (15ab), we can infer that the *de* in the VdeO construction is indeed related to tense or aspect in some form. The concept of future events belongs inherently to the domain of tense or aspect. Furthermore, since negation, modals, and other aspectual markers cannot co-occur with the *de* in the VdeO construction, they are likely in

structural particle *de* may have a different origin from the *de* in VdeO constructions. In many dialects, the structural particle *de* of Modern Standard Mandarin is replaced by classifiers, which, as noted by Shi & Li (1998), display properties similar to a determiner phrase (DP) head (cf. Li 1999). In contrast, the atelic aspect marker *de*, which is the focus of this paper, closely corresponds to the imperfective marker *dao* in various dialects (cf. Liu 2006). The grammaticalization of the atelic aspect marker *de* will be explored in future research.

³ Previous studies have addressed this issue, though its interpretation remains contested. Song (1981) and Simpson & Wu (2002) argue that *de* marks past tense, while Paul and Whitman (2008) interpret it as an aspect marker. Tang (2023) follows this line and further proposes that *de* marks perfective aspect. However, none of these perspectives fully accounts for the observations in (15). This paper contends that *de* excludes future events not because it denotes [+PAST], but because it marks atelic aspect—an aspect that characterizes homogeneous events (which inherently lack a distinction between realized and unrealized states). The following section 4.2 will elaborate on this argument.

complementary distribution with *de* and share similar functional properties. The ambiguities between progressive and habitual readings—both of which fall under the category of atelic aspect—further suggest that the VdeO construction encodes aspectual information.

If the *de* in the VdeO construction functions as an aspect marker, it must exclude future events, exhibit ambiguities between habitual and progressive readings, and impose specific constraints on the object. These conditions suggest that the aspect marked by the VdeO construction is not an outer aspect, such as habitual or progressive, but an inner aspect, specifically atelic aspect.

To support this hypothesis, I will review previous research on inner aspect, which will provide the theoretical framework for our subsequent discussion.

3.1 Definition of Inner Aspect

Inner aspect, as opposed to outer aspect (e.g., perfective/imperfective), refers to the inherent characteristics of events. Vendler (1957) and other early works categorized verbs into four aspectual classes based on their semantic features: state verbs, activity verbs, accomplishment verbs, and achievement verbs. Among these, accomplishment and achievement verbs are telic (bounded), while activity and state verbs are atelic (unbounded). This classification treated inner aspect as an inherent property of lexical items, leading to the term “lexical aspect.”

The concept of telicity requires particular explanation. Telicity originally referred to whether an event has an inherent endpoint. Telic verbs can combine with closed time expressions, while atelic verbs can combine with open time expressions, as shown below:

(16) a. build a house in 3 weeks/*for 3 weeks
 b. build houses *in 3 weeks/for 3 weeks

However, telicity is not determined solely by the verb. In the examples above, the singular or plural form of the object alters the telicity of the sentence. This observation led to the realization that telicity is determined by the entire predicate, making it an aspectual property of the predicate rather than the verb alone. For clarity in this discussion, I follow Borer (2005) in defining that telicity refers not to the endpoint of an event but to whether the event has distinctions at every moment.

Borer (2005) formalized this distinction by defining telicity in terms of two features: divisive and cumulative. Telic events lack homogeneity (i.e., they are neither cumulative nor divisible), whereas atelic events exhibit homogeneity. The definitions are as follows:

(17) a. A predicate P is homogeneous if and only if it is both cumulative and divisible:

- i. P is divisible if and only if $\forall x, y [P(x) \wedge (y < x) \rightarrow P(y)]$.
- ii. P is cumulative if and only if $\forall x, y [P(x) \wedge P(y) \rightarrow P(x \cup y)]$.

b. A predicate P is quantized if and only if it is not homogeneous.

This framework explains the contrast in (16) : *build a house* changes in nature when summed or divided, whereas *build houses* does not. Crucially, this explanation aligns with the VdeO construction's exclusion of quantificational information, as observed in (15c).

If the VdeO construction indeed represents atelic aspect, we can further explore its syntactic structure and the nature of *de* within this framework.

3.2 The Syntactic Structure of Inner Aspect

Borer (2005) uses the Exo-skeletal Model (XS-model) to analyze the syntactic structure of inner aspect. This approach, influenced by construction grammar, posits that the initial structure in the syntactic tree is not a head, as assumed in the Minimalist Program, but an entire phrase centered on an open value $\langle e \rangle$ that lacks phonetic realization. After the open value $\langle e \rangle$ being assigned a “range”, these phrases form various constructions.

There are 2 methods of range assignment: direct assignment involves directly inserting a lexical item capable of assigning range (e.g., *the* in DP) into the structure as the head. Indirect assignment is achieved through Spec-Head agreement between the Spec position and the open value. The process of assigning range essentially corresponds to the feature-checking mechanism in the Minimalist Program, where uninterpretable features are matched with interpretable ones. The structure of the inner aspect phrase proposed by Borer (2005) is as follows:

(18) $[_{vP} \text{SPEC} [_{_v} \text{v} [_{Asp2} \text{SPEC} [_{Asp2'} \langle e \rangle \text{VP}]]]]$

In this structure, $Asp2P$ represents the inner aspect phrase, located below the outer

aspect phrase (Asp1P). The subject is generated in [SPEC, vP], as in standard models, while the object is generated in [SPEC, Asp2]. The position of the object determines the interpretation of inner aspect. If the object contains quantificational information, the open value *<e>* becomes quantity, transforming Asp2 into a telic aspect phrase AspQP, where Q stands for Quantity. If the object lacks quantificational information, Asp2 turns into a Functional Shell Phrase (FsP), which is only for the object to get a special abstract case: the partitive case. In this case, without the telic aspect phrase AspQP, the sentence receives an atelic reading.

In various Chinese dialects, telic aspect is expressed through aspectual markers. For instance, Mandarin uses *le* (Wang 2018), Xiang dialects use *ga* (Lu 2022), and Wu dialects use *lə* (Hu 2024). These markers appear between the verb and the object, and the object must contain quantificational information, thus resulting in a telic predicate. The following Mandarin example illustrates this:

(19) a. wo he le jiu
 1SG drink LE wine
 'I drank (a certain amount of) wine'
 b. wo he jiu le
 1SG drink wine LE
 'I had some drinks.'

Borer's model explains why telic sentences in English, such as (16a), lack aspectual markers, while Mandarin sentences, such as (19), use the marker *le*. This difference arises from the mechanisms of range assignment. In (16a), the telic interpretation is achieved through Spec-Head agreement between the quantificational noun *a house* and the open value in the inner aspect phrase, converting the inner aspect phrase Asp2 into a telic aspect phrase AspQP. In Mandarin, this process involves direct assignment, with the aspect marker *le* inserted onto the open value and turn the Asp2 into AspQP.

Travis (2010) offers an alternative model based on the Minimalist Program rather than construction grammar:

(20) [_{V1P} SPEC V1 [_{AspP} SPEC AspP [_{V2P} SPEC [_{V2} XP]]]]

In this model, V1P corresponds to Borer's vP, AspP to AspQP or FsP, and V2P to VP. The inner aspect phrase (AspP) can encode either telic or atelic aspect, similar to how outer aspect can encode either perfective or imperfective aspect. This differs from Borer (2005), who argues that there is no atelic counterpart to AspQP. Borer supports this claim by observing that atelic predicates in Finnish always carry partitive case rather than accusative case, suggesting that objects of atelic predicates receive case a different environment rather than from AspQP.

However, there is no empirical evidence in Mandarin to support the idea that direct objects can bear a case other than accusative. Additionally, as demonstrated later, atelic predicates in Mandarin can only arise with the presence of *de* (25b). These observations support Travis's (2010) model, which posits that the same syntactic mechanism underlies both telic and atelic aspects in the inner aspect phrase. In this framework, atelic aspect and telic aspect are in complementary distribution, but atelic aspect is not simply the absence of telicity.

Sybesma (2017) proposes a similar model, also based on the Minimalist Program, which divides inner aspect into three layers:

$$(21) [\text{vP} \text{ Subj} [\text{v} [\text{RealP} [\text{RealP'} \text{ Real} [\text{PhCP} [\text{PhC} \text{ PhC} [\text{TelP} \text{ Obj} [\text{Tel} [\text{Tel} [\text{VP} [\text{V} \text{ V}]]]]]]]]]]]$$

This syntactic tree differs from the previous models by introducing three distinct layers of inner aspect. The uppermost layer, RealP (Realization Phrase), is headed by the Mandarin aspect marker *le*, which indicates that an action has been realized. The intermediate layer, PhCP (Phase Complement Phrase, cf Chao 1968), is headed by phase complements such as *wan* 'finish' and *shang* 'complete', which signify 100% completion of the action. The lowest layer, TelP (Telicity Phrase), is headed by elements such as (*yong*) *guang* 'use up' and (*chi*) *qiong* 'eat someone poor'. While less grammaticalized than phase complements, these elements also denote the completion of an action. Sybesma argues that these layers represent telic aspect in its traditional sense, marking the endpoint of an event.

4. The Atelic Analysis of *De*

The analyses of inner aspect outlined above, despite some differences, share a key feature: the inner aspect phrase is positioned between vP and VP, with the object located in

the Spec position of the inner aspect phrase, jointly determining the telicity of the sentence with the head of the inner aspect phrase (IASpP). Based on this, I suppose that the syntactic structure for VdeO constructions such as (9a) is as follows:

(22) a. *wo jinnian qu de sanci beijing
 1SG this year go DE 3 times Beijing
Int 'I have went to Beijing for 3 times this year.'
 b. [_{vP} wo [_v jinnian [_v qu+de [_{IASpP} *sanci beijing [IASp' t_{de} [VP t_{qu}]]]]]]]

In this tree, the atelic aspect marker *de* is licensed by the [-Quantity] feature of the object *Beijing* at [SPEC, IASpP]. This explains why the noun in this position cannot carry quantificational information, as such information would instead license the telic aspect marker *le*. The verb and aspect marker are merged at the vP head, ensuring the correct word order, following Sybesma & Shen (2016). Below, I discuss this analysis in detail:

4.1 The Atelic Nature of the VdeO Construction

The atelic nature of the VdeO construction can be observed through the following tests:

Unlike telic VleO constructions, VdeO constructions are homogenous, meaning that they are cumulative and divisive, and each moment within the event contains the entirety of the action. Therefore, (23a) and (23b) imply each other, but (23a) does not imply (23c) :

(23) a. ta dangshi zai chi pingguo
 3SG that time ASP eat apple
'He was eating apples at that time.' Shen
 b. ta dangshi chi de pingguo
 3SG that time eat DE apple
'He ate apples at that time.'
 c. ta dangshi chi le pingguo
 3SG that time eat LE apple
'He ate the apple at that time.'

This also means that, unlike telic VleO constructions, VdeO constructions lack a

degree concept and cannot co-occur with degree-modifying expressions:

(24) wo jihu/ chadian'er/ yankan zhao-dao *de/le nidegou
 1SG almost nearly about to find-out DE/LE your dog
Intended: 'I almost found your dog.'

Additionally, atelic events do not imply sequential order when conjoined, while telic events do. In (25), sentences with *de* lack sequential information, whereas those with *le* produce a sequential interpretation. For example, in (25b) with *le*, "arriving in Beijing" necessarily precedes "arriving in Tianjin." Changing the coordinator *hou* ('after') to a non-sequential coordinator *hai* ('also') creates an environment suitable only for *de*..

(25) a. wo zhao-dao de/*le nidegou you zhaodao de/*le nidemao
 1SG find-out DE/LE your dog and find-out DE/LE your cat
'I found your dog and found your cat.'

b. ta dao *de/le beijing lvyou hou dao *de/le tianjin
 3SG arrive DE/LE Beijing tour after arrive DE/LE Tianjin
gouwu
 shopping
Intended: 'He arrived Beijing for tourism and arrived Tianjin for shopping.'

4.2 *De* as the Atelicity Head

Under this analysis, the ambiguity between habitual and progressive readings in VdeO constructions such as (12) arises because the head of the outer aspect phrase is licensed through long-distance agreement with the inner aspect phrase. This hypothesis predicts that adverbially triggered outer aspect readings should be incompatible with VdeO constructions, as the head of the outer aspect phrase cannot be doubly licensed, which explains the ungrammaticality of (23),:

(23) wo {*meitian} zaoshang kan {*de} baozhi
 1SG everyday morning read DE newspaper
Int: 'I read newspaper in the morning.'

Bare verbs in Mandarin can also have an atelic reading. However, they may simultaneously exhibit ambiguities with future or imperative interpretations, as in (24a). These ambiguities disappear when the sentence adopts the VdeO form as in (24b). This is because future and imperative readings are expressed through null modals or operators, which are overridden when their assignment conflicts with the overt atelic aspect marker *de*:

(24) a. wo kan baozhi
 1SG read newspaper
 FUT: *'I will read newspapers'*
 IMP: *'Me, read the newspaper.'*
 ATE: *'I read newspapers.'*

b. wo kan de baozhi
 1SG read DE newspaper
 'I read newspapers.'

4.3 The Exclusion of Elements Above vP and Future Events

I further propose that the exclusion of elements above vP in VdeO constructions arises from similar conflicts. As elements above vP can determine the tense/aspectual interpretation of the sentence in the way proposed in Tsai (2008) by becoming the spell-out of the event argument at the T head, or binding the event argument E. If the produced tense/aspect interpretation conflicts with the atelic aspect, the sentence becomes ungrammatical, as the inner aspect head IA_{Sp} would also try to license the outer aspect or T head, despite there is one existed already. (25) shows a such a situation caused by an outer aspectual head. Given that future events in Chinese are expressed through modal elements or null operators, the exclusion of future events in VdeO constructions may also result from such assignment conflicts rather than the assumption that *de* inherently encodes [Past] or [Perfective] features.

(25) [TP Subj [T₀ OA_{Sp} [OA_{Sp} toA_{Sp} [vP t_{Subj} [v V-IA_{Sp}-Obj [IA_{Sp}P [t_{Obj} [IA_{Sp} [t_{IA_{Sp}} [VP tv]]]]]]]]]]]]]
 wo *zai mai-de-nirou
 1SG PROG buy-DE-beef
 Int: 'I bought some beef'

5. The Atelic Aspect Analysis of Pseudo-Cleft Sentences

Pseudo-cleft sentences are another mean to express focus. While the copula in genuine cleft is purely a focus assigner rather than link the two part of sentence, pseudo-clefts are two NPs linked by the copula. An example of Mandarin pseudo-cleft and its counterpart in English is given in (26).

(26) wo mai de shi you yaokonggongneng de
 1SG buy DE COP have remote control function NMLZ
 'What I bought is that one with remote control function.'

Such Mandarin sentences can be analyzed like their English counterparts, as copula constructions connecting two equal noun phrases. Reverse the order of these two noun phrases, and one can observe that although the topic and subject change, the nature of the sentence remains the same, as shown in (27).

(27) you yaokonggongneng de shi wo mai de
 have remote control function NMLZ COP 1SG buy DE
 'That one with remote control function is what I bought.'

However, notably, the first "NP" part of Mandarin's such sentence allows elements that theoretically cannot appear in a DP, such as aspectual adverbs like *hai* 'still' and evaluative adverbs like *pianpian* 'just'. Once these adverbs are added, the two parts of the sentence can no longer be reversed.

(3) a. Wo hai/pianpian mai de (shi) you yaokonggongneng
 1SG still/just buy DE COP have remote control function
 de
 NMLZ
'I still/just bought that one with remote control function.'
 b. *you yaokonggongneng de (shi) wo hai/pianpian mai de
 have remote control function NMLZ COP I still/just buy DE
Intended: 'That one with remote control function is what I still/just bought.'

Other adverbs, such as temporal or causal ones like *jiu* 'then' and *bian* 'so', as well as evaluative adverbs like *ying* 'forcedly' and *pian* 'deliberately', can also appear in this construction, signaling persistence or reluctance. These adverbs are positioned between AspP and VP, making their appearance in DP/NP highly unlikely. This means that if adverbs like *hai* 'still' are permissible, the syntactic structure in this part of the sentence is unrelated to DP, instead aligning with the distributional conditions of *hai* 'still'. Thus, these two morphologically similar constructions can be differentiated by the placement of higher-positioned adverbs.

I argue that Mandarin pseudo-cleft sentences exhibit inherent ambiguity, allowing them to be interpreted as either an atelic sentence with a focus phrase or a copular sentence linking two NPs. Only the latter qualifies as a true pseudo-cleft sentence.

6. Conclusion

This paper examined the restrictions associated with the VdeO construction and argued that these restrictions indicate that the construction encodes atelic aspect, with *de* functioning as the head of atelic aspect phrase. The exclusion of future events and the habitual or progressive ambiguous readings of the VdeO construction result from its atelic nature, meaning that the event lacks inherent distinctions at every moment. These properties are not due to any inherent [Past] or [Perfective] features, as the previous studies claimed. When the VdeO construction lacks a noun or the noun carries quantificational information, the construction either loses its original properties or becomes ungrammatical. This is because the licensing of atelic predicates requires the noun in [SPEC, AspP] to carry the [-Quantity] feature.

This conclusion implies that VdeO and VOde are structurally distinct constructions, with *de* playing different roles in each.

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