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All structures great and small: on copular sentences with shì in Mandarin

Cheng, H.

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Author: Cheng, H.

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CHAPTER 6

Is there a TP in Mandarin copular sentences?

The previous two chapters examined both the position of *shì* in the structure and the structure below *shì*P. The question now is what structure(s) we have on top of *shì*P. This chapter investigates in particular whether copular structures contain TP. I propose that copular sentences with individual-level predicates (ILP henceforth) contain no TP in the structure while copular sentences with stage-level predicates (SLP henceforth) do. Copular sentences pattern with non-copular sentences. As the individual-level/stage-level (IL/SL henceforth) distinction between predicates plays a pivotal role in the ensuing investigation, Section 6.1 will first discuss the ILP/SLP-distinction in Mandarin. It will show that Mandarin copular sentences also manifest the IL/SL dichotomy. Section 6.2 will present crucial properties of ILP sentences (copular or non-copular) that are different from Mandarin SLP and ILP sentences in other languages. A hypothesis that Mandarin sentences with ILPs do not have syntactic tense will be hence put forth in Section 6.3, accounting for the properties of the ILPs as well as the ILP/SLP-distinctions observed. Section 6.4 provides a piece of supporting evidence for the no-TP hypothesis for ILP copular sentences from the realm of anaphor-binding. Section 6.5 provides an additional example of sentences with *shì* that possibly contain no T.

6.1 IL/SL-distinction in Mandarin

By definition, “stage-level properties are properties of stages, and individual-level properties are properties of individuals” (Kratzer 1995: 126). The IL/SL-distinction can be tested and used to account for various phenomena in many languages. Mandarin, however, does not show such a clear distinction as other languages. Of all the syntactic diagnostics for the IL/SL-distinction identified in the literature, only a few can be applied to Mandarin data. This section will first present an overview of robust diagnostics for other languages and then turn to a discussion of their application to the Mandarin IL/SL-distinction.

6.1.1 Previous studies

Chierchia (1995) identifies six key properties as criteria for characterising individual-level predicates, as compared to stage-level predicates. First of all, ILPs express stable stativity, while SLPs express “transient” or “episodic” properties. The compatibility of temporal adverbials manifests this contrast. For instance, *being drunk* is typically a stage-level property, while *being tall* is supposed to be individual-level. As shown in (1), when uttered in isolation, the SLP is compatible with different types of temporal adverbials while the ILP is incompatible with them. Note that when some special contexts are set up, the predicates commonly regarded as ILPs can have the transient interpretation and be compatible with temporal adverbials, as shown in (2).

- (1) a. ?? John was tall yesterday/last month/a year ago.
 b. John was drunk yesterday/last month/a year ago.
- (2) John was intelligent on Tuesday, but a vegetable on Wednesday.
 (Chierchia 1995: 177)

Second, locative adverbials are subject to even tighter restrictions on the co-occurrence with ILPs than temporal adverbials. It is generally impossible to modify ILPs with locative adverbials, as the properties of ILPs are supposed to hold everywhere, in contrast with SLPs, which are located in space.¹ As shown in (3), without particular contexts, it is infelicitous to claim that someone is intelligent in France, but it is

appropriate to say someone is sick in France.

- (3) a. ?? John is intelligent in France.
b. John is always sick in France.

(Chierchia 1995: 178)

The restrictions on the compatibility with temporal and locative modification is also observed in German. As discussed in Kratzer (1995), the sentence in (4a) with a stage-level predicate is ambiguous, but the one in (4b) with an individual-level predicate only has one reading.

- (4) a. ... weil fast alle Flüchtlinge in dieser Stadt
... since almost all refugees in this city
umgekommen sind.
perished are
'... since almost all of the refugees in this city perished.'
Or '... since almost all of the refugees perished in this city.'
b. ... weil fast alle Schwäne in Australien schwarz sind.
... since almost all swan in Australia black are
'... since almost all of the swans in Australia are black.'

(Kratzer 1995: 127)

The third property is that, an ILP cannot occur within the small clause complement of a perception verb, as shown in (5).

- (5) a. ?? I saw John tall.
b. I saw John drunk.

(Chierchia 1995: 178)

The fourth property was first pointed out in Milsark (1974). As shown in (6), the *there*-construction excludes ILPs and only allows for SLPs.

¹ILPs can, in fact, co-occur with locatives in some contexts. The locatives are regarded to provide temporal locations. See Maienborn (2004), Husband (2012), and Ernst (2016), among others, for discussion.

- (6) a. ?? There are two men intelligent/white/altruistic
 b. There are two men drunk/sick/available
 (Chierchia 1995: 179)

The fifth property concerns bare plurals, which play a crucial role in Carlson (1977a, 1977b) and Husband (2012). Specifically, the bare plural subject in (7a) receives a universal interpretation, while the subject in (7b) can be interpreted either existentially or universally.

- (7) a. Firemen are altruistic.
 b. Firemen are available.
 (Chierchia 1995: 179)

The last property discussed in Chierchia (1995) is associated with adverbs of quantification. This phenomenon is also noted by Kratzer (1995). In brief, when a sentence contains an adverb of quantification, an ILP requires an indefinite or bare plural subject, which is not required for SLPs. Kratzer (1995) notes the pattern with *when*-clauses, as shown in (8) and (9). Chierchia (1995) further points out that the pattern can also be observed in the absence of a *when*-clause, as shown in (10) and (11).

- (8) a. ?? When Mary knows French, she knows it well.
 b. When a Moroccan knows French, she knows it well.
 c. When Mary knows a foreign language, she knows it well.
 (9) When Mary speaks French, she speaks it well.
 (Kratzer 1995: 129)
- (10) a. ?? John always knows French.
 b. A Moroccan always knows French.
 c. Moroccans always know French.
 (11) John always speaks French.
 (Chierchia 1995: 181)

In addition to Chierchia's (1995) list, Kratzer (1995) provides two additional IL/SL-distinctions in German with regards to syntactic behaviour. The first distinction involves so-called "quantifier split". Specifically, quantifier split is possible with SLPs but impossible with ILPs.

As shown in (12) and (13), the (a) sentences present unsplit quantifier phrases, and the (b) sentences involve quantifier split with the verb moving to the V2 position. Following Diesing (1992), Kratzer (1995) argues that the contrast between (12b) and (13b) corroborates the view that the subject of an SLP is base-generated in [Spec, VP], whereas that of an ILP is base-generated in [Spec, IP].

- (12) a. ... weil das viele Lehrer wissen.
 ... since this many teachers know
 ‘... since many teachers know this.’
- b. *Lehrer wissen das viele.
 teachers know this many
 Intended: ‘As for teachers, many of them know this.’
- (13) a. ... weil uns viele Lehrer geholfen haben.
 ... since us many teachers help have
 ‘... since many teachers helped us.’
- b. Lehrer haben uns viele geholfen.
 teachers know this many help
 ‘As for teachers, many of them helped us.’
- (Kratzer 1995: 133)

The other IL/SL-distinction in German that Kratzer (1995) mentions is relevant to the first one. Subjects of SLPs permit extraposition of a relative clause while subjects of ILPs do not, as shown in (14).

- (14) a. *... weil zwei Bücher teuer waren, die niemand lesen
 since two books expensive were that nobody read
 wollte.
 wanted
 ‘... since two books were expensive that nobody wanted to
 read.’
- b. ... weil zwei Kinder hier waren, mit denen niemand
 since two children here were, with whom nobody
 spielen wollte.
 play wanted
 ‘... since two children were here with whom nobody wanted
 to play.’
- (Kratzer 1995: 134-135)

Before moving to the discussion of diagnostics for IL/SL-distinction in Mandarin, it is worth pointing out that Husband (2012) argues that there are no individual-level stative verbs or stage-level stative verbs. Instead, the full VP should be taken into consideration when discussing IL/SL-distinction. Particularly, the definiteness of the internal argument of the verb is also decisive for the type of predicates in addition to the properties of the verbs. For instance, the (a) sentences in (15) and (16) respectively have the same verbs as the two (b) sentences. The only difference lies in the definiteness of the internal arguments of the verbs. However, the subjects of the two (a) sentences in (15) and (16) only have the universal reading while the subjects of the (b) sentences can possibly have an existential reading. As Husband (2012) takes the interpretation of subject bare plurals as the key diagnostic for IL/SL-distinction in statives, the predicates in the (a) sentences are analysed as ILPs, whereas those in the (b) sentences are taken to be SLPs. Though interesting, I will not delve into this issue in this thesis but leave it for future research. Being aware of the potential influence of the definiteness of the internal arguments, I will try to consistently make sentences with indefinite nominals.²

- (15) a. Monkeys live in trees.
 b. Monkeys live in that tree.
- (16) a. Students know answers.
 b. Students know this answers.

²Taking Husband's (2012) observations as inspiration, it is also worth exploring whether certain properties of subjects may influence the IL/SL-distinction of predication. In other words, the IL/SL-distinction involve a distinction at the sentence level rather than at the VP level. For instance, intuitively speaking, (ia) describes a transient state. In contrast, the state depicted by (ib) is more individual-level-like. In fact, lifetime effects (see the next section) can also be observed in (ib). To be specific, when the sentences are in the past tense, (iia) indicates that the cat left the corner but may be still alive. In contrast, (iib) suggests that Building 20 has already been demolished. To put it in a figurative way, the building is dead.

- (i) a. A cat is at the corner.
 b. Building 20 is at the corner.
- (ii) a. A cat was at the corner.
 b. Building 20 was at the corner.

6.1.2 IL/SL-distinction in Mandarin non-copular sentences

Not all of the above-mentioned diagnostics are applicable to Mandarin. For instance, perception verbs do not take a small clause complement in Mandarin. Also, the question as to which structures can be viewed as existential sentences in Mandarin is a complex issue. C.-T. J. Huang (1987) proposes five types of existential sentences. However, it seems that different types of existential sentences have different preferences with respect to the types of predication. In addition, diagnostics associated with quantifier split or the extraposition of relative clauses cannot be carried over to Mandarin, either. This subsection will show that the three diagnostics can be carried over to Mandarin non-copular sentences. Then, the subsection that follows will present the application of these diagnostics (with some revisions) to Mandarin copular sentences.

First, as has already been mentioned in the previous section, ILPs are generally incompatible with temporal modification, as opposed to SLPs. In addition, ILPs cannot co-occur with spatial modification (see also L. Chen and Pan 2008; L. Chen 2016).

(17) Individual-level predicate

- a. 迈克很高。
Màike hěn gāo.
Mike very tall
'Mike is tall.'
- b. * 迈克昨天/今天/明天很高。
**Màike zuótiān/jīntiān/míngtiān hěn gāo.*
Mike yesterday/today/tomorrow very tall
lit. 'Mike was/is/will be tall yesterday/today/tomorrow.'
- c. * 迈克在学校很高。
**Màike zài xuéxiào hěn gāo.*
Mike at school very tall
lit. 'Mike is tall at school.'

(18) Stage-level predicate

- a. 迈克很高兴。
Màike hěn gāoxìng.
Mike very happy
'Mike is happy.'

- b. 迈克昨天/今天/明天很高兴。
Màike zuótiān/jīntiān/míngtiān hěn gāoxìng.
 Mike yesterday/today/tomorrow very happy
 ‘Mike was/is/will be happy yesterday/today/tomorrow.’
- c. 迈克在学校很高兴。
Màike zài xuéxiào hěn gāoxìng.
 Mike at school very happy
 ‘Mike is happy at school.’

Also, the distinction between ILPs and SLPs with respect to adverbs of quantification can also be observed in Mandarin. The Mandarin equivalents of (8) to (11) show a pattern parallel to them.

- (19) a. *当玛丽会法语的时候，她会很精通法语。 (cf. (8a))
 **Dāng Mǎlì huì Fǎyǔ de shíhou, tā huì hěn jīngtōng Fǎyǔ.*
 when Mary know French SUB time 3SG will very
jīngtōng Fǎyǔ.
 excel.in French
Intended: ‘When Mary knows French, she knows it well.’
- b. 当一个摩洛哥人会法语的时候，她通常很精通法语。
 (cf. (8b))
Dāng yī-ge Mólùògērén huì Fǎyǔ de shíhou, tā tōngcháng hěn jīngtōng Fǎyǔ.
 when one-CLF Moroccan know French SUB time 3SG
 always very excel.in French
 ‘When a Moroccan knows French, she knows it well.’
- c. 当玛丽会一门外语的时候，她通常很精通这门语言。
 (cf. (8c))
Dāng Mǎlì huì yī-mén wàiyǔ de shíhou, tā tōngcháng hěn jīngtōng zhè-mén yǔyán.
 when Mary know one-CLF foreign.language SUB time 3SG
 always very excel.in DEM-CLF language
 ‘When Mary knows a foreign language, she knows it well.’

- (20) 当玛丽说法语的时候，她通常说得很好。 (cf. (9))
Dāng Mǎlì shuō Fǎyǔ de shíhòu, tā tōngcháng shuō de
 when Mary speak French SUB time 3SG always speak DE
hěn hǎo.
 very well
 ‘When Mary speaks French, she speaks it well.’
- (21) a. *玛丽通常会法语。 (cf. (10a))
 **Mǎlì tōngcháng huì Fǎyǔ.*
 Mary always know French
lit. ‘Mary always knows French.’
- b. 一个摩洛哥人通常会法语。 (cf. (10b))
Yī-ge Mólùògērén tōngcháng huì Fǎyǔ.
 one-CLF Moroccan always know French
 ‘A Moroccan always knows French.’
- c. 摩洛哥人通常会法语。 (cf. (10c))
Mólùògērén tōngcháng huì Fǎyǔ.
 Moroccan always know French
 ‘Moroccans always know French.’
- (22) 玛丽通常说法语。 (cf. (11))
Mǎlì tōngcháng shuō Fǎyǔ.
 Mary always speak French
 ‘Mary always speaks French.’

And finally, as observed in L. Chen and Pan (2008) and L. Chen (2016), the different interpretations of subject bare nouns between ILPs and SLPs can also be found in Mandarin. The bare noun *píngguǒ* has the generic reading in (23a), while it has the definite specific reading in (23b). Note that the interpretative distinctions between the subjects in (23) are not the same as what has been observed in English. Crucially, the subject bare noun in an SLP sentence such as (23b) must be interpreted as a definite rather than as an existential. In other words, *píngguǒ* ‘apple’ in (23b) is interpreted as ‘the apple(s)’ instead of ‘some apples’.

- (23) a. 苹果富含维生素 A。
Píngguǒ fùhán wéishēngsù-A.
 apple be.rich.in vitamin.A
 ‘Apples are rich in Vitamin A.’

- b. 苹果熟了。
Píngguǒ shú le.
 apple ripe PFV.
 ‘The apples are ripe.’

(L. Chen & Pan 2008: 64)

A number of other diagnostics have also been proposed to distinguish Mandarin ILPs and SLPs. For instance, Yeh (1993b) points out that the compatibility with the progressive marker *zhe* may distinguish SLPs from ILPs. Paris (1994) argues that the availability of object fronting in the *de*-construction reflects the IL/SL-distinction in Mandarin. L. Chen and Pan (2008) resorts to the choice of negator (*bù* vs. *méi*) for differentiating ILPs and SLPs. Liu and Han (2015) notes that although gapping is restricted in Mandarin, sentences tend to be good if the verbal constituent of the first clause is also omitted. This rescuing strategy, however, only applies to ILP sentences and not to SLP sentences. Unfortunately though, as has been discussed in L. Chen and Pan (2017), counterexamples that undermine these proposals are not difficult to find. Hence, these diagnostics will not be taken as diagnostics for the IL/SL-distinction in the current study.

6.1.3 IL/SL-distinction in Mandarin copular sentences

Previous studies on the IL/SL-distinction in Mandarin mainly address non-copular sentences. Given that Mandarin copular sentences show a number of distinctive syntactic properties from that of non-copular sentences, and that, accordingly, in this thesis a structure is proposed for copular sentences that is different from that of non-copular sentences (namely, copular structures lack the VP), it is essential to investigate whether or not Mandarin copular sentences have the IL/SL-distinction on a par with non-copular sentences. The three diagnostics (with revisions) discussed in the previous subsection will be applied to copular sentences. As a result, Mandarin copular sentences will be found to also have IL/SL-distinctions.

To start with, conceptually speaking, a person’s region of origin does not normally change. In contrast, ‘being a secondary school student’ is normally a temporary property. Thus, the predicate in (24a) tends to be individual-level, while that in (24b) is more stage-level.

- (24) a. 迈克是德州人。
Màike shì Dézhōu rén.
 Mike COP Texas people
 ‘Mike comes from Texas.’
- b. 迈克是中学生。
Màike shì zhōngxuéshēng.
 Mike COP secondary.school.student
 ‘Mike is a secondary school student.’

As shown in (25) that the (a) sentence and the (b) sentence differ in terms of compatibility with temporal modification. A sentence containing an individual-level-like predicate, as in (25a), is incompatible with the adverb *qùnián* ‘last year’ while one containing a stage-level predicate, as in (25b), is compatible with the same adverb.

- (25) a. * 迈克去年是德州人。 *Individual-level*
 **Màike qùnián shì Dézhōu rén.*
 Mike last.year COP Texas people
- b. 迈克去年是中学生。 *Stage-level*
Màike qùnián shì zhōngxuéshēng.
 Mike last.year COP secondary.school.student
 ‘Mike was a secondary school student last year.’

Note that, unlike non-copular sentences, copular sentences are in general incompatible with locative modification irrespective of being ILPs or SLPs, as shown in (26).³

- (26) a. * 迈克在美国是德州人。 *Individual-level*
 **Màike zài Měiguó shì Dézhōu rén.*
 Mike in the.US COP Texas people

³There are a few exceptions in which copular sentences co-occur with locatives, such as (i), which indicates that the subject individual has multiple identities at different places. Presumably, the properties expressed by copular sentences are commonly independent from particular locations regardless of whether they are individual-level or stage-level.

- (i) 乔伊斯在学校是好老师，在家是好母亲。
Qiáoyīsī zài xuéxiào shì hǎo lǎoshī, zài jiā shì hǎo mǔqīn.
 Joyce at school COP good teacher at home COP good mother
 ‘Joyce is a good teacher at school, and she is a good mother at home.’

- b. * 迈克在美国是中學生。⁴ *Stage-level*
 *Màike zài Měiguó shì zhōngxuéshēng.
 Mike in the.US COP secondary.school.student

In addition, the different interpretations of subject bare nouns between ILPs and SLPs can also be found in copular sentences. As shown in (27), *Móluògē rén* ‘Moroccans’ in (27a) has the generic interpretation, whereas the same noun in (27b) has the definite interpretation. The bare noun *Móluògē rén* ‘Moroccans’ in (27b) must refer to certain Moroccans identified in the discourse. Inclusion of the demonstrative will make the sentence more natural.

- (27) a. 摩洛哥人是非洲人。 *Individual-level*
Móluògē rén shì Fēizhōu rén.
 Morocco people COP Africa people
 ‘Moroccans are Africans.’
- b. (那几个) 摩洛哥人是中學生。 *Stage-level*
 (Nà-jǐ-ge) *Móluògē rén shì zhōngxuéshēng.*
 DEM-some-CLF Morocco people COP
 secondary.school.student
 ‘The Moroccans are secondary school students.’

Lastly, the distinction associated with adverbs of quantification can also be applied to copular sentences.⁵ For one thing, as shown in (28), copular sentences pattern with non-copular sentences in that the use of adverbs of quantification requires indefinite subjects in ILP sentences. Interestingly, (28b) is infelicitous if it is interpreted as an individual-level sentence. However, it will be felicitous if it is interpreted as a stage-level sentence. That is, if Mary frequently dyes her hair different colours, *having black hair* is a stage-level property for Mary. As a result, (29) is acceptable. Note crucially that, as Chierchia (1995) has pointed out, some SLPs pattern with ILPs in that they are incompatible with

⁴This sentence can be felicitous in a specific context where different education systems are under discussion. For instance, taking Mike’s age and the level of education he has received into consideration, he counts as a secondary school student in the US education system. However, he might be viewed as a final-year primary school student if he is going to attend another school in a foreign country.

adverbs of quantification, as shown in (30). Chierchia ascribes such incompatibility to the lack of iterability of the predicates.

(28) Individual-level

- a. 摩洛哥人通常是黑头发。
Móluògē rén tōngcháng shì hēi tóufa.
 Morocco people usually COP black hair
 ‘Moroccans usually have black hair.’
- b. # 玛丽通常是黑头发。
 #*Mǎlì tōngcháng shì hēi tóufa.*
 Mary usually COP black hair

(29) Stage-level

- 玛丽通常是黑头发。
Mǎlì tōngcháng shì hēi tóufa.
 Mary usually COP black hair
 ‘Mary usually has black hair (but she sometimes colours her hair).’

- (30) a. * 摩洛哥人通常是中学生。
 **Móluògē rén tōngcháng shì zhōngxuéshēng.*
 Morocco people usually COP secondary.school.student
- b. * 玛丽通常是中学生。
 **Mǎlì tōngcháng shì zhōngxuéshēng.*
 Mary usually COP secondary.school.student

In sum, IL/SL-distinction can also be observed in Mandarin copular sentences. The following sections will focus on one property of Mandarin ILPs that has rarely been noticed. Investigation of this property on ILPs and their differences from SLPs will lead to a discussion of whether Mandarin copular sentences have T or not. Before closing off this section, I need to point out that as the current thesis will not explore criteria of IL/SL-distinctions further, being aware of the potential controversy, I will use the least controversial examples in this study. Crucially, I will focus on predicates that are widely acknowledged to be ILPs or SLPs in the literature. They pass the diagnostics for the IL/SL-distinction

⁵I will not adopt the *when*-test proposed in Kratzer (1995). Following what will be argued in the later sections, copular sentences under *when*-adverbials should all be viewed as SLP sentences.

discussed in the current section. Additionally, the internal arguments of the verbs are indefinite, and the subjects will be restricted to animate nominals, especially human beings, since the “lifetime effects” are the locus of the ensuing discussion.

6.2 More on Mandarin ILPs: no past/present contrast

It was shown in the previous section that, cross-linguistically speaking, ILPs are in general incompatible with temporal adverbials while SLPs are compatible with temporal modification. This section will delve into other properties in relation to the temporal interpretations of Mandarin ILPs, as opposed to SLPs. In brief, Mandarin ILP sentences show no past/present contrast. Furthermore, whether the subjects are alive or dead does not affect the felicity of sentences when uttered in isolation. Crucially, Mandarin ILPs behave differently from other languages. That a past-tensed ILP sentence uttered in isolation indicates that the subject is dead has been attested in many languages, a phenomenon discussed as “lifetime effects”. Section 6.2.1 will first introduce previous studies on “lifetime effects” on ILPs in other languages. Section 6.2.2 investigates the Mandarin data.

6.2.1 Lifetime effects

Lifetime effects were first noticed in Kratzer (1989/1995). When uttered in isolation, a past-tensed sentence with an individual-level predicate imposes restrictions on the lifetime of the subject, unlike sentences with stage-level predicates. For instance, (31), a sentence with a typical individual-level predicate, indicates that Henry is dead at the time of utterance if the sentence is uttered out of the blue. In contrast, (32) can be true when Henry is alive, as the sentence contains a stage-level predicate, *happy*. When the contexts are appropriate, (31) can have a stage-level reading and accordingly be true even if Henry is alive. For instance, it is perfectly acceptable if Henry has changed his nationality from French to Dutch and he is still alive at the utterance time.

- (31) Henry was French. *Individual-level predicate*
(Kratzer 1995: 155)
- (32) Henry was happy. *Stage-level predicate*

The same effects have also been noticed in other languages, such as in German (Kratzer 1995), Polish (Citko 2008), and Russian (Pereltsvaig 2007). To account for such effects on ILPs, at least two approaches have been proposed. The first type of account is typically Davidsonian. Individual-level predicates are supposed to have no Davidsonian argument (an additional argument *e* in relation to the event of the verb (Davidson 1967)), in contradistinction to stage-level predicates, which do (Diesing 1992; Kratzer 1995). Assuming the tense predicate is a predicate for a Davidsonian argument, the past tense can accordingly apply to the Davidsonian argument of an SLP. In contrast, as ILPs lack the Davidsonian argument, the past tense must apply to their unique argument, the subject. The contrast is sketched below.⁶ (33) represents the individual-level interpretation of (31) that Henry was a Frenchman and that he was dead. He never changed his nationality. The past tense applies to the subject argument *Henry*. (34) represents the stage-level interpretation of both (31) (when the context is appropriate) and (32). That is, Henry was happy at some time interval; and Henry used to be a Frenchman but changed his nationality. The past tense applies to the Davidsonian argument. In a word, the distinction between the individual-level interpretation and the stage-level interpretation depends on which argument – the Davidsonian argument or the external argument – can be bound by the tense operator (Kratzer 1995).

- (33) *Individual-level interpretation*
[before-now(Henry)] & [French(Henry)] cf. (31)
- (34) *Stage-level interpretation*
- a. [before-now(1)] & [Happy(Henry,1)] cf. (32)
- b. [before-now(1)] & [French(Henry,1)] cf. (31)

⁶The formulas in (33) and (34) are adapted from Kratzer (1995: 156). ‘before-now’ corresponds to the past tense. ‘*l*’ is defined as a variable over spatial-temporal locations in Kratzer (1995), which is more or less equivalent to *e*, which represents the event/Davidsonian argument.

The other type of account applies pragmatic conversational implicature to the lifetime effects. Musan (1997) assumes a presuppositional condition of lexical entries for both ILPs and SLPs on their argument's being in existence or alive. Therefore, a sentence in the present tense confronts a case of presupposition failure if the subject has passed away, as in (35). In addition, assuming that a predicate in the past tense asserts that a situation is over, irrespective of the manner in which the situation came to an end, the situation described by an individual-level predicate is naturally terminated along with the death of the individual. In contrast, whether a situation described by a stage-level predicate is over or not is independent from whether the subject individual is living or dead. A past-tensed sentence with a stage-level predicate fails to include a description of the state of the subject at the time of utterance, which gives rise to the "Maxim of Quantity" (Grice 1975) violation of not being informative enough, as in (36).

- (35) *Context:* Henry died and never changed his nationality.
 a. Henry was French. *Felicitous*
 b. # Henry is French. *Infelicitous: presupposition failure*
- (36) *Context:* Henry is alive, and he is happy.
 a. Henry is happy. *Felicitous*
 b. # Henry was happy.
Infelicitous: Maxim of Quantity violation

Husband (2012) questions the pragmatic approach because the constituent that introduces the world knowledge is unspecified in Musan's (1997) analysis. He returns to the semantic base, aligning with Carlson (1977a), Diesing (1992), Kratzer (1995), and Chierchia (1995). First of all, incorporating his proposal on the compositional nature of states, Husband takes homogeneity as the pivot of the ILP/SLP-distinction. Specifically, he argues that, on a par with events, states also vary systematically in their aspectual interpretation. Different types of states display a homogeneous/quantized contrast, a distinction comparable to the telic/atelic distinction of events. ILPs are supposed to be homogeneous while SLPs are quantized. The contrast in terms of homogeneity between ILPs and SLPs can in turn explain the lifetime effects. Husband assumes that lifetime effects arise when all the stages of an individual

are put in the past. As ILPs apply to homogeneous stages of the subject, which is the subject itself, when an ILP sentence is in the past tense, it must be the case that all the stages of the individual are put in the past. In other words, the subject has died. In contrast, SLPs only apply to a quantized stage of a subject, so when the SLP sentences are in the past tense, it is unclear whether the quantized stages cover all the stages of the individual (normally they do not). As a result, lifetime effects are expected to be observed with ILP sentences but not with SLP sentences.

6.2.2 Mandarin data

The Mandarin data partially deviate from what has been observed in English and other languages. On the one hand, when uttered in isolation, whether the subject is alive or dead also affects the felicity of different types of sentences. Crucially, ILPs differ from SLPs. On the other, the restrictions on the lifetime of the subject of ILP sentences in relation to the past tense are absent in Mandarin. Mandarin ILP sentences are always felicitous no matter whether the subject is dead or alive.

Here are some examples. (37) presents some examples of ILP sentences, while (38) presents examples of SLP sentences. The contrast between the two sets of sentences is clear. When they are uttered in isolation, (37a) is felicitous whether Mike is alive or dead, as long as it is true that Mike meets/met the standard of ‘being tall’ when he is/was alive. Similarly, (37b) is felicitous as long as Mike was born in Texas, irrespective of whether he is dead or still alive. In contrast, those in (38) can only be felicitous when Mike is alive and is happy or Mike is a secondary school student.

- (37) Individual-level
- a. 迈克很高。
Màike hěn gāo.
 Mike very tall
 ‘Mike is/was tall.’
 - b. 迈克是德州人。
Màike shì Dézhōu rén.
 Mike COP Texas people
 ‘Mike comes from Texas.’

- (38) Stage-level
- a. 迈克很高兴。
Màike hěn gāoxìng.
 Mike very happy
 ‘Mike is/*was very happy.’
- b. 迈克是中学生。
Màike shì zhōngxuéshēng.
 Mike COP secondary.school.student
 ‘Mike is/*was a secondary school student.’

As SLPs are compatible with temporal modification, the sentences in (39) and (40) are well formed. Although it is debatable whether these sentences have tense or not, the sentences in (39) describe present states while those in (40) describe past states.⁷ When uttered in isolation, Mike in (39) must be alive. In contrast, it is unclear whether Mike is dead or alive at utterance time on the basis of (40). Such behaviour in Mandarin SLPs patterns with that of English.

- (39) Present
- a. 迈克 (现在) 很高兴。
Màike (xiànzài) hěn gāoxìng.
 Mike now very happy
 ‘Mike is very happy.’
- b. 迈克 (现在) 是中学生。
Màike (xiànzài) shì zhōngxuéshēng.
 Mike now COP secondary.school.student
 ‘Mike is a secondary school student.’
- (40) Past
- a. 迈克当时很高兴。
Màike dāngshí hěn gāoxìng.
 Mike at.that.time very happy
 ‘Mike was very happy at that time.’

⁷This thesis takes the position that these sentences have syntactic tense. For more on this issue, see 6.3.1.

- b. 迈克当时是中学生。
Màike dāngshí shì zhōngxuéshēng.
 Mike at.that.time COP secondary.school.student
 ‘Mike was a secondary school student at that time.’

Mandarin ILP sentences are different both from SLP sentences and from English ILP sentences. As we have seen from (37), the sentences are felicitous regardless of whether Mike is dead or alive. More crucially, the ILP sentences show no past/present contrast at all. Since Mandarin does not show tense morphology, determining whether (37) should be interpreted as referring to past states or present states requires taking the temporal adverbials or context into account. However, as discussed in the previous section, ILPs in Mandarin (and in other languages) are not generally compatible with temporal adverbials.⁸ As a result, when uttered in isolation, the sentences provide no clue for whether the states denoted by ILP sentences are past or present. That is, it is unclear whether (37) describes past events or present events.

More strikingly, Mandarin allows for coordination of a living person (e.g. Mike) and a dead person (e.g. Barbara) functioning as the subject of an individual-level predicate, as shown in (41). Also, in the stripping-like constructions in Mandarin, whether or not the subject is living can be different in the two clauses, as shown in (42).

- (41) a. 迈克和芭芭拉都很高。
Màike hé Bābālā dōu hěn gāo.
 Mike and Barbara all very tall
 ‘Mike is tall, and Barbara was tall.’
- b. 迈克和芭芭拉都是德州人。
Màike hé Bābālā dōu shì Dézhōu rén.
 Mike and Barbara all COP Texas people
 ‘Mike is from Texas, and Barbara was from Texas.’

⁸A few exceptions do exist. For instance, ILPs can co-occur with adverbials that mean ‘while alive’, such as *shēngqián* ‘before death’ or *huó zhe de shíhou* ‘the time when being alive’. The use of these adverbials explicitly indicates the death of the subject but does not influence the temporal relation of the subject and the properties denoted by the predicates. In fact, these adverbials are not often used unless the death needs to be emphasised.

- (42) a. 迈克很高, 芭芭拉也是。
Màike hěn gāo, Bābālā yě shì.
 Mike very tall Barbara also SHI
 ‘Mike is tall, and Barbara, too.’
- b. 迈克是德州人, 芭芭拉也是。
Màike shì Dézhōu rén, Bābālā yě shì.
 Mike COP Texas people Barbara also SHI
 ‘Mike comes from Texas, and Barbara, too.’

In contrast, parallel sentences with SLPs, such as (43) and (44), are not felicitous if the same setting remains that Mike is alive while Barbara has died.

- (43) a. # 迈克和芭芭拉都很高兴。
#Màike hé Bābālā dōu hěn gāoxìng.
 Mike and Barbara all very happy
- b. # 迈克和芭芭拉都是中学生。
#Màike hé Bābālā dōu shì zhōngxuéshēng.
 Mike and Barbara all COP secondary.school.student
- (44) a. # 迈克很高兴, 芭芭拉也是。
#Màike hěn gāoxìng, Bābālā yě shì.
 Mike very happy Barbara also SHI
 ‘Mike is/*was very happy.’
- b. # 迈克是中学生, 芭芭拉也是。
#Màike shì zhōngxuéshēng, Bābālā yě shì.
 Mike COP secondary.school.student Barbara also SHI

The pattern in Mandarin and English can be summarised in Table 6.1.⁹ The SLPs show a parallel pattern in the two languages. When uttered in isolation, the subject must be alive when the sentence describes a present state. The subject can either be alive or dead when the sentence describes a past state. However, Mandarin ILPs behave differently from SLPs and from ILPs in English. For one thing, Mandarin ILP sentences can always be felicitous irrespective of whether the subject is dead or alive. For the other, there is no obvious past/present distinction for ILP sentences.

Table 6.1: Dead/living and ILP/SLP correspondence

		Past	Present
English	ILP	dead	alive
	SLP	dead/alive	alive
Mandarin	ILP	no past/present distinction	
	SLP	dead/alive	alive

The Mandarin data cannot be fully accounted for by any of the analyses of “lifetime effects” in English introduced in Section 6.2.1. Particularly, Mandarin ILP sentences show no past/present distinction and are insensitive to the living/dead status of the subject. Since past/present tense plays a crucial role in those accounts for the restrictions on the lifetime of subjects of ILPs in English, they cannot be carried over to Mandarin. The next section will propose that Mandarin ILP sentences (copular and non-copular) have no TP in the structure, in contrast to SLP sentences.

6.3 No-TP hypothesis for Mandarin ILP sentences

6.3.1 Previous studies on TP in Mandarin

The term “tense” can be defined from different perspectives. This thesis only concerns *syntactic tense* and puts aside discussions about *morphological tense* and *semantic tense*. Differently put, the question at issue is whether TP exists on the spine of the Mandarin clause and functions to express the relation between Topic Time and Utterance Time (for terms see Klein 1994), although Mandarin does not have tense morphology.¹⁰ It has long been controversial whether Mandarin has TP in the sentence structure. The current subsection will not provide an extensive overview of the debates. I will only present the most representative studies to set

⁹Note crucially that, the past/present distinction in Table 6.1 does not mean exactly the same for English and Mandarin. For English, it concerns morphological marking of past/present tense. For Mandarin, the tense of the sentences is not morphologically marked. The past/present contrast for SLPs presented in the table regards the time reference denoted by the temporal adverbials in the sentences.

the scene for the current discussion. See Sybesma (2017b) for a review on this issue and references therein for details.

A certain line of research argues against the existence of TP (J.-W. Lin 2003, 2006, 2010; Smith & Erbaugh 2005). These studies argue for the view that the temporal interpretation of Mandarin sentences is derivable from “default aspect” on the basis of the properties of predicates (e.g. bounded/unbounded, telic/atelic) (Bohnenmeyer & Swift 2004). In brief, states and activities have a default present reading, while accomplishments and achievements have a default past reading (J.-W. Lin 2006). Or, unbounded situations are located in the present while bounded situations are located in the past (Smith & Erbaugh 2005). Additionally, temporal adverbs, modal elements, and discourse and world knowledge may override the default temporal interpretation.

Matthewson (2002) argues that T would be postulated if linguistic entities can manipulate the temporal interpretation of sentences. Sybesma (2007) provides corresponding evidence from Mandarin that temporal interpretations of Mandarin sentences can only be manipulated by linguistic elements such as temporal adverbs, particles, or linguistic contexts (as opposed to non-linguistic or pragmatic contexts). For instance, when uttered in isolation, (45a) has a present tense reading. When the temporal adverb referring to a past time point is added to the sentence, it has a past tense reading, as shown in (45b). Crucially, the change of temporal interpretation from (45a) to (45b) is ascribed to the use of the adverb, which is a linguistic element. In contrast, the change of a non-linguistic element, for instance, the dead/living status of Zhangsan cannot give rise to a past tense interpretation of (45a). The sentence instead turns infelicitous, like other stage-level predicate sentences we saw in the previous sections.

- (45) a. 张三住在这儿。
 Zhāngsān zhù zài zhèr.
 Zhangsan live at here
 ‘Zhangsan lives here.’

¹⁰It is arguable that *de* 的 in some sentences, especially cleft relevant constructions, is a past tense marker.

- b. 张三 1989 年住在这儿。
Zhāngsān 1989 *nián* *zhù* *zài* *zhèr*.
 Zhangsan 1989 year live at here
 ‘Zhangsan lived here in 1989.’

(Sybesma 2007: 581)

The current thesis is in favour of the existence of TP in Mandarin. Detailed argumentation against the view that Mandarin has no TP see Sun (2014) and T.-H. J. Lin (2015). I am particularly interested in two issues. First, does TP exist in Mandarin copular structures? Most of the previous discussions have not paid attention to the temporal interpretation and the temporal structure of copular sentences.¹¹ Investigation into this issue is necessary. Second, is it possible that, within a single language, sentences vary in terms of the presence of TP? In other words, is it possible that some sentences have TP while others do not?¹²

6.3.2 No-tense hypothesis

This thesis proposes that sentences containing individual-level statives in Mandarin do not have syntactic tense (or TP), as opposed to sentences containing stage-level statives, which do have TP. This hypothesis goes one step further from Sun’s (2014) proposal that Mandarin non-statives have both TP and AspP while statives only have TP. The gist of the hypothesis is given in Table 6.2.

¹¹J.-W. Lin (2010) touches upon the connection between TP and copular sentences. He views copulas as carriers of tense morphology. Accordingly, he assumes that languages without TP allow for the absence of an obligatory copula. As *shì* in Mandarin is sometimes omissible in matrix clauses (see Section 2.2 in Chapter 2), TP does not exist in Mandarin. Obviously, this argument cannot be correct since, as discussed in Chapter 2, *shì* is obligatory in most copular sentences. According to J.-W. Lin’s (2010) reasoning, on the contrary, Mandarin should have TP in the structure. See also T.-H. J. Lin (2015) and Law and Ndayiragije (2017) for arguments against J.-W. Lin (2010) on this point.

¹²Progovac (2006) argues that the (non-)existence of TP distinguishes sentences from non-sentential clauses. However, I will not regard Mandarin ILP sentences as non-sententials.

Table 6.2: Eventualities and temporal projections

	TP	AspP
IL-statives	-	-
SL-statives	+	-
non-statives	+	+

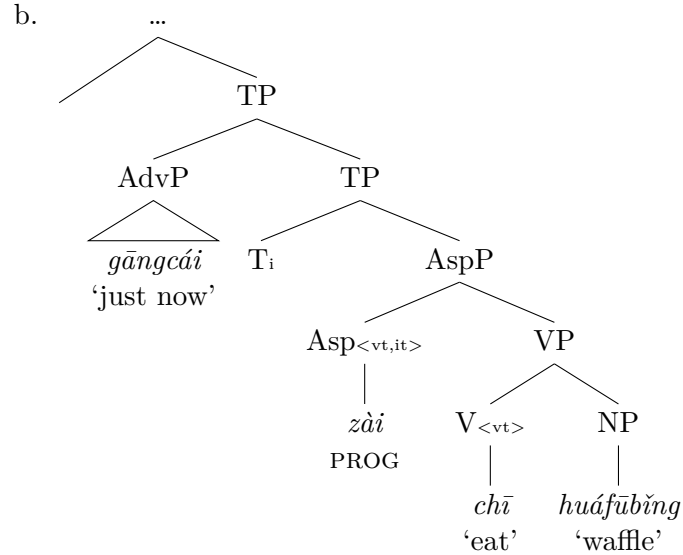
I follow Dowty (1979), Katz (1995, 2003), Kratzer (1998), and Sun’s (2014) assumption that stative predicates are properties of times and eventive predicates are properties of events. In addition, T has a time interval as its semantics, which serves as Reference Time (to use Reichenbach’s 1947 term) or Topic Time (Klein’s 1994 term) for anchoring the eventuality described by the sentence. Following Katz (1995, 2003), Sun (2014) proposes that in Mandarin, stative VPs can directly combine with T, while eventive VPs must combine with an aspect first and then with T. The simplified structures are presented below in (46) and (47).¹³ An eventive VP sentence such as (46a) requires an overt aspect; otherwise, the sentence crashes (or has only the generic reading).¹⁴ In contrast, a stative VP sentence such as (47a) cannot contain an aspectual marker. In structural terms, AspP relates VP and TP in (46b), while TP combines directly with VP in (47b). Temporal adverbials adjoin to TP in both sentences. Superstructures containing functional projections such as FinP and other discourse-related projections project on top of TP, which are left out in the structures given below.

(46) Eventive VP

- a. 小十一刚才 *(在) 吃华夫饼。
*XiǎoShíyī gāngcái *(zài) chī huáfūbǐng.*
 little.Eleven just.now PROG eat waffle
 ‘El was eating waffles just now.’

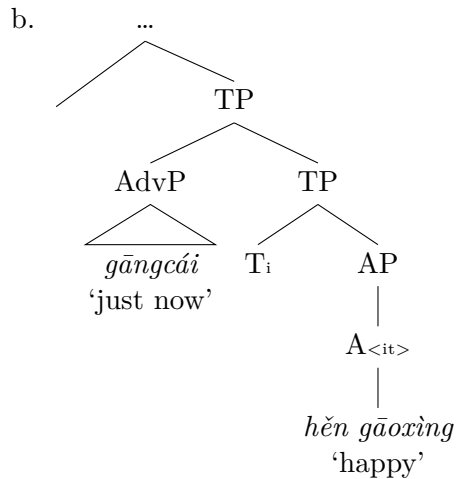
¹³The generic reading is only possible when the temporal adverbial in (46a) is absent.

¹⁴*i* stands for “interval”, *t* stands for “truth value”, and *v* stands for “event”.



(47) Stative VP

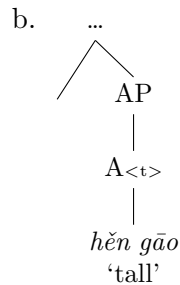
- a. 小十一刚才很高兴。
XiǎoShíyī gāngcái hěn gāoxìng.
 little.Eleven just.now very happy
 ‘El was happy just now.’



Sun (2014) does not distinguish IL-statives from SL-statives. As we saw in the previous section, Mandarin ILP sentences and SLP sentences present distinctive patterns in terms of temporal structure and

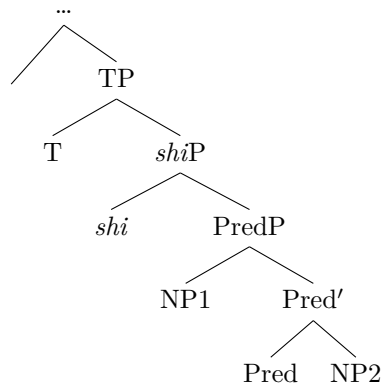
interpretation. Again, ILPs do not co-occur with temporal adverbials, while SLPs do. Furthermore, when uttered in isolation, the subject of an SLP sentence must be alive, while that of an ILP sentence can be either alive or dead. This thesis proposes that the structure in (47b) proposed by Sun (2014) only works for stage-level statives but not for individual-level statives. The structure for individual-level statives is proposed as (48b). In other words, the predicate stands alone, and does not combine with any time interval. The truth value holds forever. Higher projections will be responsible for subject licensing, finiteness, and other discourse-related properties.

- (48) a. 迈克很高。
Màike hěn gāo.
 Mike very tall
 ‘Mike is tall.’

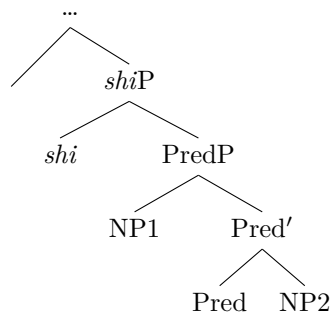


The same structures apply to Mandarin copular sentences. Responding to the question raised at the beginning of this chapter: some copular sentences have TP in the structure while others do not. Specifically, copular sentences with ILPs have no TP while those with SLPs do.

(49) a. Stage-level



b. Individual-level



These structures in (48b) and (49b) immediately explain the fact that ILPs do not co-occur with temporal adverbials, assuming temporal adverbials adjoin to TP. As mentioned in the previous sections, when the contexts are appropriate, a sentence with an individual-level predicate can have a stage-level reading. Crucially, when the sentence has a stage-level interpretation, temporal modification is possible. For instance, normally, the colour of one's hair does not change (admittedly, it turns grey at a certain point). *Hēi tóufa* '(having) black hair' can be regarded as an individual-level predicate. In this sense, it cannot be modified by a temporal expression. However, if Mary frequently dyes her hair, *hēi tóufa* '(having) black hair' is a stage-level property for her. On that circumstance, (51) is felicitous. Structurally speaking, when the predicates function as SLPs, TP occurs in the structure, which makes adjunction of a temporal expression possible.

- (50) 玛丽是黑头发。
Mǎlì shì hēi tóufa.
 Mary COP black hair
 ‘Mary has black hair.’
- (51) 玛丽上周是黑头发。
Mǎlì shàngzhōu shì hēi tóufa.
 Mary last.week COP black hair
 ‘Mary had black hair last week.’

6.3.3 No-tense hypothesis and ILP sentences

The properties of Mandarin ILP and SLP sentences discussed in Section 6.2.2 can also be accounted for by the paradigm presented in Table 6.2.

First, assuming no TP, that ILP sentences have no past/present distinction is expected. In addition, in line with the Kratzer (1995) and Husband’s (2012) reasoning, the question as to whether the subjects are alive or dead does not affect the felicity of ILP sentences is also expected. Assuming the tense operator needs to bind an argument, a sentence without TP does not have the tense operator. Hence, nothing in the sentence must be bound by the operator. No restriction is in turn imposed on the lifetime of the subject. In other words, the subject can be either alive or dead.

Moreover, sentences without TP always have a tenseless interpretation. The truth value of the sentences holds forever, including the utterance time, intervals preceding the utterance time, and intervals following the utterance time. Whether the subject is alive or dead is only a function of world knowledge. Whether the speaker knows that or not will not invalidate the assertion. For instance, as pointed out by Musan (1997), if George is dead, (52a) is infelicitous. One may tend to correct the utterance by saying something like “No, he WAS from America. He died last year.” Conversely, if George is still alive, uttering (52b) is infelicitous. One may tend to correct it by saying something like “No, he IS from America. He is still alive.” In contrast, Mandarin speakers of (53) will never receive similar corrections as the other speaker will not know if s/he knows what has happened to George by simply judging from this sentence. If George recently died, and the other speaker assumes that the person uttering (53) may not be aware of his death, s/he may respond to

(53) by saying something like “Speaking of George, do you know that he died recently?” In short, the superficial past/present distinction of ILP sentences, which results from the living/death contrast, is completely hypothetical in Mandarin. It does not lead to any syntactic or semantic differentiation in the sentences.

- (52) a. George is from America.
b. George was from America.

- (53) 乔治是美国人。
Qiáozhì shì Měiguórén.
George COP American
'George is/was American.'

Also, by assuming no tense in ILP sentences, the coordination of a living and a dead subject (assuming Mike is alive while Barbara has died) or co-occurrence of them in stripping-like constructions do not lead to a problem. For the subject coordination cases (e.g. (54)), there is no TP that needs to mediate between two temporal references. For the stripping constructions (e.g. (55)), there is no TP to copy from the antecedent to the elided clause.

- (54) 迈克和芭芭拉都是德州人。
Màike hé Bābālā dōu shì Dézhōu rén.
Mike and Barbara all COP Texas people
'Mike is from Texas, and Barbara was from Texas.'

- (55) 迈克是德州人，芭芭拉也是。
Màike shì Dézhōu rén, Bābālā yě shì.
Mike COP Texas people Barbara also SHI
'Mike comes from Texas, and Barbara, too.'

For SLP sentences, the coordination of a living and a dead subject or co-occurrence of them in stripping-like constructions is infelicitous. For sentences like (56), the two states, that is, *Mike being a secondary school student* and *Barbara being a secondary school student*, have different temporal references that cannot be encoded in a single T. Also, in stripping-like constructions, when TP is copied to the second clause, the feature value of T cannot be changed.

- (56) # 迈克和芭芭拉都是中学生。
 # *Màike hé Bābālā dōu shì zhōngxuésheng.*
 Mike and Barbara all COP secondary.school.student
- (57) # 迈克是中学生，芭芭拉也是。
 # *Màike shì zhōngxuésheng, Bābālā yě shì.*
 Mike COP secondary.school.student Barbara also SHI

In fact, habitual sentences pattern with ILP sentences. For instance, although the predicates of the sentences in (58) are stage-level, whether Zhangsan's grandfather is alive or dead makes no difference for the truth value of the assertions. The parallel properties of lifetime effects correspond to Chierchia's (1995) proposal that individual-level predicates are inherently generics. Or, following Krifka et al. (1995), individual-level predicate sentences together with generic/habitual sentences as shown in (58) are all taken as characterising sentences.

- (58) a. 张三的爷爷总是很累。
Zhāngsān de yéye zǒngshì hěn lèi.
 Zhangsan SUB grandfather always very exhausted
 'Zhangsan's grandfather is/was always very exhausted.'
- b. 张三的爷爷每个月都去北京。
Zhāngsān de yéye měi-ge yuè dōu qù Běijīng.
 Zhangsan SUB grandfather every-CLF month all go Beijing
 'Zhangsan's grandfather goes/went to Beijing every month.'

6.3.4 Alternative analyses

Capturing the property that Mandarin sentences lack the past/present distinction, Sun (2014) argues for the existence of a covert semantic tense NON-FUT in Mandarin on the basis of observations that some Mandarin sentences can be truthfully uttered when their subjects are the coordination of a dead individual and a living one but contain only one predicate, as in (59a) and (59b). The NON-FUT tense limits the time span for the eventualities to intervals that precede or include the utterance time (Matthewson 2006). Particularly, as opposed to a Past/Non-past tense system, the NON-FUT/FUT tense system does not distinguish the past and present tenses. Hence, the NON-FUT proposal nicely explains why

it is possible in Mandarin to describe plural eventualities with more than one temporal location (past and present) with one single predicate.

- (59) a. 牛顿和霍金都对物理感兴趣。¹⁵
Niúdùn hé Huòjīn dōu duì wùlǐ gǎnxìngqū.
 Newton and Hawking all to physics interest
 ‘Both Newton and Hawking are interested in physics.’
- b. 古龙和莫言都抽烟。¹⁶
Gǔ Lóng hé Mò Yán dōu chōuyān.
 Gu Long and Mo Yan all smoke
 ‘Both Gu Long and Mo Yan smoke.’

(Sun 2014: 205)

The NON-FUT proposal is further supported by the obligatory occurrence of a future modal. For instance, the modal element *huì* ‘will’ must occur in (60).

- (60) 张三明天 * (会) 很沮丧。
*Zhāngsān míngtiān *(huì) hěn jǔsàng.*
 Zhangsan tomorrow will very frustrated
 ‘Zhangsan will be frustrated tomorrow.’

Note that it is attested in other languages such as English and French that present-tensed sentences can be used to describe future-oriented events when the events have been scheduled or planned in advance. This phenomenon has been analysed as “futate” constructions (Copley 2008, 2011). (61) presents the English example of a futurate construction provided in Copley (2008), and (62) presents their Chinese equivalents taken from Sun (2014). Since which team will play at what time is normally scheduled in advance but the result cannot be planned, the (a) sentences are felicitous, while the (b) sentences are infelicitous when uttered in isolation (unless there is match manipulation). As shown by the (c) sentences, a modal element is required.

¹⁵Steven Hawking was still alive in the year 2014, when Sun’s work was done.

¹⁶Both Gu Long and Mo Yan are Chinese novelists. Gu Long died in 1985. Mo Yan is still alive.

- (61) a. The Red Sox play the Yankees tomorrow.
 b. # The Red Sox defeat the Yankees tomorrow.
 c. The Red Sox will defeat the Yankees tomorrow.
 (Copley 2008: 261)
- (62) a. 中国队明天比赛。
Zhōngguó duì míngtiān bǐsài.
 China team tomorrow play
 ‘The Chinese team plays tomorrow.’
 b. # 中国队明天赢。
#Zhōngguó duì míngtiān yíng.
 China team tomorrow win
Intended: ‘The Chinese team will win tomorrow.’
 c. 中国队明天能赢。
Zhōngguó duì míngtiān néng yíng.
 China team tomorrow can win
 ‘The Chinese team can win tomorrow.’
 (Sun 2014: 218)

However, this NON-FUT proposal is not unproblematic. Examples discussed by Sun (2014) that contain the conjoined subject of a living individual and a dead individual always either have individual-level predicates or are generic sentences. However, when the predicates are stage-level, the sentences with the same subjects turn infelicitous, comparing (63) to (59).

- (63) a. # 古龙和莫言都很沮丧。
#Gǔlóng hé Mòyán dōu hěn jǔsàng.
 Gulong and Moyan all very frustrated.
Intended: ‘Gu Long was frustrated, and Mo Yan is frustrated.’
 b. # 古龙和莫言都去了北京。
#Gǔlóng hé Mòyán dōu qù le Běijīng.
 Gulong and Moyan all go PFV Beijing
Intended: ‘Both Gu Long and Mo Yan went to Beijing.’

The contrast between the (a) sentences and (b) sentences in (64) and (65) points to a similar problem. Assuming Zhangsan’s father is alive

while, unfortunately, his grandpa has passed away, the two (a) sentences are felicitous when uttered in isolation, whereas the (b) sentences are infelicitous, even though the (a) sentences and the (b) sentences have basically the same readings.

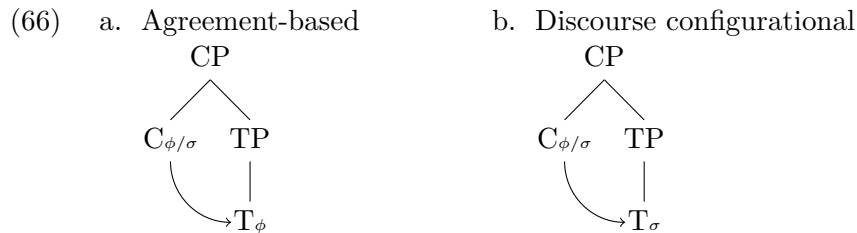
- (64) a. 张三的爸爸和爷爷都是物理老师。
Zhāngsān de bàba hé yéye dōu shì wùlǐ lǎoshī.
 Zhangsan SUB dad and grandpa all COP physics teacher
 ‘Zhangsan’s dad is a physics teacher, and his grandpa was a physics teacher.’
- b. # 张三的爸爸和爷爷都当了物理老师。
 # *Zhāngsān de bàba hé yéye dōu dāng le wùlǐ lǎoshī.*
 Zhangsan SUB dad and grandpa all serve.as PFV physics teacher
Intended: ‘Zhangsan’s dad is a physics teacher, and his grandpa was a physics teacher.’
- (65) a. 张三的爸爸是物理老师，张三的爷爷也是。
Zhāngsān de bàba shì wùlǐ lǎoshī, Zhāngsān de yéye yě shì.
 Zhangsan SUB dad COP physics teacher Zhangsan SUB grandpa too COP
 ‘Zhangsan’s dad is a physics teacher, and his grandpa, too.’
- b. # 张三的爸爸当了物理老师，张三的爷爷也是。
 # *Zhāngsān de bàba dāng le wùlǐ lǎoshī, Zhāngsān de yéye yě shì.*
 Zhangsan SUB dad serve.as PFV physics teacher Zhangsan SUB grandpa too COP
Intended: ‘Zhangsan’s dad is a physics teacher, and his grandpa, too.’

The infelicity of the above sentences is unexpected by the NON-FUT proposal, as the original proposal of NON-FUT tense does not impose restrictions on predicate classes. In fact, the infelicity of (63) and the (b) sentences in (64) and (65) can be ascribed to presupposition failure based on Musan’s (1997) pragmatic analysis. Assuming that predicates such as *being frustrated*, *went to Beijing*, or *servng as a physics teacher* must presuppose the existence of the entities denoted

by the subjects, the appearance of dead individuals accordingly yields to the presupposition failure. However, the contrasts in felicity between sentences with different types of predicates as well as the differences observed between languages (for instance, Mandarin and English) are unexpected under Musan’s original proposal.

6.4 Supporting evidence: blocking effects of anaphor binding

This section presents a phenomenon which may support the no-TP hypothesis for ILP copular sentences. It starts out from Miyagawa’s (2010, 2017) proposal that there are two types of languages, namely, agreement languages and discourse-configurational languages. The former involves phi-feature agreement, while the latter involves topic/focus agreement. Adopting the idea of feature inherence, he further argues that both the phi-feature and the topic/focus feature starts out in the C region and can be inherited by T (or a functional head immediately on top of T). T in an agreement language will inherit the phi-feature (but not the topic/focus feature), whereas T in a discourse-configurational language inherits the topic/focus feature. The simplified schema of the two types of feature inherence is provided in (66).



(Adapted from Miyagawa 2017: 4)

With regards to Mandarin, Miyagawa (2010, 2017) shows evidence for phi-feature agreement in Mandarin and comes to the conclusion that it is an agreement language (like English, unlike Japanese). The main evidence comes from the phenomenon that the blocking effect for the reflexive anaphor *zìjǐ* in long-distance relation is absent with a third

person local subject (e.g. (67)) and can only be found when the local subject is a first- or second-person pronoun, as shown in (68)–(70) (C.-T. J. Huang 1984; C.-C. J. Tang 1989; Pan 2001; Giblin 2015).

- (67) 张三_i 以为李四_j 对自己_{i/j} 没信心。
Zhāngsān_i yǐwéi Lǐsì_j duì zìjǐ_{i/j} méi xìnxīn.
 Zhangsan think Lisi facing self NEG confidence
 ‘Zhangsan_i thought Lisi_j had no confidence in himself_{i/j}.’
- (68) a. 我_i 以为李四_j 对自己_{i/j} 没信心。
Wǒ_i yǐwéi Lǐsì_j duì zìjǐ_{i/j} méi xìnxīn.
 1SG think Lisi facing self NEG confidence
 ‘I thought Lisi had no confidence in myself/himself.’
- b. 我_i 以为你_j 对自己_{*i/j} 没信心。
*Wǒ_i yǐwéi nǐ_j duì zìjǐ_{*i/j} méi xìnxīn.*
 1SG think 2SG facing self NEG confidence
 ‘I thought you had no confidence in *myself/yourself.’
- (69) a. 你_i 觉得李四_j 对自己_{?i/j} 没信心吗?
Nǐ_i juéde Lǐsì_j duì zìjǐ_{?i/j} méi xìnxīn ma?
 2SG think Lisi facing self NEG confidence Q
 ‘Did you think that Lisi had no confidence in ?yourself/himself.’
- b. 你_i 以为我_j 对自己_{*i/j} 没信心吗?
*Nǐ_i juéde wǒ_j duì zìjǐ_{*i/j} méi xìnxīn ma?*
 2SG think 1SG facing self NEG confidence Q
 ‘Did you think that I had no confidence in *yourself/myself.’
- (70) 张三_i 以为我_j/你_k 对自己_{*i/j/k} 没信心。
*Zhāngsān_i yǐwéi wǒ_j/nǐ_k duì zìjǐ_{*i/j/k} méi xìnxīn.*
 Zhangsan think 1SG/2SG facing self NEG confidence
 ‘Zhangsan thought I/you had no confidence in myself/yourself/*himself.’

The contrast between 1st/2nd and 3rd person in triggering the “blocking effect” is ascribed to the [participant] feature in Miyagawa (2017). Assuming that participant agreement has all the features of full agreement while the non-participant agreement does not, the 1st/2nd person pronouns have all the features for agreement while the 3rd person pronouns do not. Miyagawa’s (2017) reasoning is based on a

non-movement account for the long-distance binding of *zìjǐ*. It has been observed that long-distance construal of *zìjǐ* is possible within islands (C.-T. J. Huang & Tang 1991; Cole, Hermon & Huang 2006), as shown in (71). Accordingly, Giblin (2015) proposes that the long-distance binding of Mandarin *zìjǐ* does not involve movement of the anaphor. Instead, the anaphor is assumed to be bound by an Agr head, following Progovac (1992).

- (71) a. 张三_i 说 [如果李四批评自己_i], 他就不去。
Zhāngsān_i shuō [rúguǒ Lǐsì pīpíng zìjǐ_i], tā jiù bù qù.
 Zhangsan say if Lisi criticise self 3SG then NEG go
 ‘Zhangsan said that if Lisi criticised him, then he will not go.’
- b. 张三_i 不喜欢 [[那些批评自己_i的] 人]。
Zhāngsān bù xǐhuan [[nàxiē pīpíng zìjǐ de] rén].
 Zhangsan NEG like DEM-some criticise self SUB person
 ‘Zhangsan does not like those people who criticised him.’
 (C.-T. J. Huang & Tang 1991: 171)

Miyagawa (2017) adapts the Agr head in Giblin’s (2015) analysis of Mandarin long-distance construal of *zìjǐ* ‘self’ to be T. This T presumably has an anaphoric feature that is checked by a participant feature. Once the participant feature is checked, the T is no longer anaphoric to a higher T. In other words, the “blocking effect” takes place. If the participant feature is not checked, the T remains anaphoric to a higher T. Thus, the anaphor is able to be bound by a high antecedent. As 1st/2nd person has the [participant] feature, feature checking takes place, which blocks T from forming a link with a higher T. In contrast, as 3rd person does not have the [participant] feature, feature checking does not take place, and the blocking effect is absent.

Interestingly, however, copular sentences in Mandarin behave differently from non-copular sentences with respect to the blocking effect. For a group of Mandarin speakers I consulted, the “blocking effect” disappears in (73) to (75). For the remaining speakers, coindexation between *zìjǐ* and the matrix subject in sentences in (73) to (75) is marginally acceptable, as compared to that of (68) to (70), in which the coindexation is completely unacceptable.

- (72) 张三_i 以为李四_j 是自己_{i/j} 的代言人。
Zhāngsān_i yǐwéi Lǐsì_j shì zìjǐ_{i/j} de dài yán rén.
 Zhangsan think Lisi COP self SUB spokesman
 ‘Zhangsan_i thought Lisi_j was his_{i/j} own spokesman.’
- (73) a. 我_i 以为李四_j 是自己_{i/j} 的代言人。
Wǒ_i yǐwéi Lǐsì_j shì zìjǐ_{i/j} de dài yán rén.
 1SG think Lisi COP self SUB spokesman
 ‘I thought Lisi was my/his own spokesman.’
- b. 我_i 以为你_j 是自己_{?i/j} 的代言人。
Wǒ_i yǐwéi nǐ_j shì zìjǐ_{?i/j} de dài yán rén.
 1SG think 2SG COP self SUB spokesman
 ‘I thought you were ?my/your own spokesman.’
- (74) a. 你_i 觉得李四_j 是自己_{i/j} 的代言人吗?
Nǐ_i juéde Lǐsì_j shì zìjǐ_{i/j} de dài yán rén ma?
 2SG think Lisi COP self SUB spokesman Q
 ‘Did you think that Lisi was your/his own spokesman?’
- b. 你_i 觉得我_j 是自己_{?i/j} 的代言人吗?
Nǐ_i juéde wǒ_j shì zìjǐ_{?i/j} de dài yán rén ma?
 2SG think 1SG COP self SUB spokesman Q
 ‘Did you think that I was ?your/his own spokesman.’
- (75) 张三_i 以为我_j/你_k 是自己_{i/j/k} 的代言人。
Zhāngsān_i yǐwéi wǒ_j/nǐ_k shì zìjǐ_{i/j/k} de dài yán rén.
 Zhangsan think 1SG/2SG COP self SUB spokesman
 ‘Zhangsan thought I/you was/were my/your/his own spokesman.’

As sentences in (67) to (70) are not minimal pairs with those in (72) to (75), I constructed the following sentences. Interestingly, all the speakers I consulted reported the “blocking effect” this time.

- (76) 张三_i 以为李四_j 做了自己_{i/j} 的代言人。
Zhāngsān_i yǐwéi Lǐsì_j zuò le zìjǐ_{i/j} de dài yán rén.
 Zhangsan think Lisi serve.as PFV self SUB spokesman
 ‘Zhangsan_i thought Lisi_j was his_{i/j} own spokesman.’

- (77) a. 我_i 以为李四_j 做了自己_{i/j} 的代言人。
Wǒ_i yǐwéi Lǐsì_j zuò le zìjǐ_{i/j} de dàiyánrén.
 1SG think Lisi serve.as PFV self SUB spokesman
 ‘I thought Lisi was my/his own spokesman.’
- b. 我_i 以为你_j 做了自己_{*i/j} 的代言人。
*Wǒ_i yǐwéi nǐ_j zuò le zìjǐ_{*i/j} de dàiyánrén.*
 1SG think 2SG serve.as PFV self SUB spokesman
 ‘I thought you were *my/your own spokesman.’
- (78) a. 你_i 觉得李四_j 做了自己_{??i/j} 的代言人吗?
Nǐ_i juéde Lǐsì_j zuò le zìjǐ_{??i/j} de dàiyánrén ma?
 2SG think Lisi serve.as PFV self SUB spokesman Q
 ‘Did you think that Lisi was ??your/his own spokesman.’
- b. 你_i 觉得我_j 是自己_{*i/j} 的代言人吗?
*Nǐ_i juéde wǒ_j zuò le zìjǐ_{*i/j} de dàiyánrén ma?*
 2SG think 1SG serve.as PFV self SUB spokesman Q
 ‘Did you think that I was *your/his own spokesman.’
- (79) 张三_i 以为我_j/你_k 做了自己_{??i/j/k} 的代言人。
Zhāngsān_i yǐwéi wǒ_j/nǐ_k zuò le zìjǐ_{??i/j/k} de
 Zhangsan think 1SG/2SG serve.as PFV self SUB
dàiyánrén.
 spokesman
 ‘Zhangsan thought I/you was/were my/your/??his own spokesman.’

If Miyagawa’s analysis is on the right track, the contrast with regard to the appearance of the blocking effect between copular sentences and non-copular sentences suggests that copular sentences (e.g. (72) to (75)) do not show phi-feature (participant) agreement. Structurally speaking, there are two possibilities. First, these copular sentences do not have a T in the structure. Consequently, phi-feature agreement cannot take place. Second, T does exist in the copular structure, but this T does not inherit the phi-feature, unlike the T in non-copular sentences. The current study will propose the first option because, as shown below, when a temporal adverbial is used (irrespective of the position of the adverbials), the “blocking effect” is observed.

- (80) 张三_i 以为 < 明天 > 李四_j < 明天 > 是自己_{i/j} 的代言人。
Zhāngsān_i yǐwéi < míngtiān > Lǐsì_j < míngtiān > shì zìjǐ_{i/j} de
 Zhangsan think tomorrow Lisi tomorrow COP self SUB
dàiyánrén.
 spokesman
 ‘Zhangsan_i thought Lisi_j was his_{i/j} own spokesman.’
- (81) a. 我_i 以为 < 明天 > 李四_j < 明天 > 是自己_{i/j} 的代言人。
Wǒ_i yǐwéi < míngtiān > Lǐsì_j < míngtiān > shì zìjǐ_{i/j} de
 1SG think tomorrow Lisi tomorrow COP self SUB
dàiyánrén.
 spokesman
 ‘I thought Lisi was my/his own spokesman.’
- b. 我_i 以为 < 明天 > 你_j < 明天 > 是自己_{*i/j} 的代言人。
*Wǒ_i yǐwéi < míngtiān > nǐ_j < míngtiān > shì zìjǐ_{*i/j} de*
 1SG think tomorrow 2SG tomorrow COP self SUB
dàiyánrén.
 spokesman
 ‘I thought you were *my/your own spokesman.’
- (82) a. 你_i 觉得 < 明天 > 李四_j < 明天 > 是自己_{*i/j} 的代言人吗?
*Nǐ_i juéde < míngtiān > Lǐsì_j < míngtiān > shì zìjǐ_{*i/j} de*
 2SG think tomorrow Lisi tomorrow COP self SUB
dàiyánrén ma?
 spokesman Q
 ‘Did you think that Lisi was *your/his own spokesman.’
- b. 你_i 觉得 < 明天 > 我_j < 明天 > 是自己_{*i/j} 的代言人吗?
*Nǐ_i juéde < míngtiān > wǒ_j < míngtiān > shì zìjǐ_{*i/j} de*
 2SG think tomorrow 1SG tomorrow COP self SUB
dàiyánrén ma?
 spokesman Q
 ‘Did you think that I was *your/my own spokesman.’

- (83) 张三_i 以为 < 明天 > 我_j/你_k < 明天 > 是自己_{*i/j/k} 的代
 言人。
Zhāngsān_i yǐwéi <míngtiān> wǒ_j/nǐ_k <míngtiān> shì
 Zhangsan think tomorrow 1SG/2SG tomorrow COP
*zìjǐ_{*i/j/k} de dàiyánrén.*
 self SUB spokesman
 ‘Zhangsan thought I/you was/were my/your/*his own spokes-
 man.’

Therefore, the contrast in terms of the “blocking effect” in relation to anaphor binding between copular sentences (without temporal adverbials) and non-copular sentences, as well as copular sentences modified by temporal expressions, lends support to the no-TP hypothesis (for ILPs) this chapter argues for.

6.5 Additional data: temporally underspecified bare clauses

This subsection introduces another type of sentence with *shì* (though sometimes covert) that possibly contains no T (H. Cheng 2021). These sentences have bare predication and are felicitous only when describing planned or scheduled events. Interestingly, the temporal interpretation of these bare matrix clauses is free. The specification of the temporal relation regarding the utterance time is a function of background knowledge. When interpreted in this way, they make reference to arrangements, schedules, plans, and so forth provided by the context. For instance, (84) is a conversation about the programme of a performance. Imagine a dance gala on which three ballet dances are performed by three groups of dancers at 8 p.m., 9 p.m., and 10 p.m. respectively. Assuming Nancy dances *The Nutcracker* at 9 p.m., then Nancy’s dancing is a present event if the conversation takes place at 9 p.m. Similarly, Nancy’s dancing would be a past event if (84) is uttered at 10 p.m.; her dancing would be a future event if (84) is uttered at 8 p.m. The understanding of the dancing event as a present event, a past event, or a future event is not fixed; it varies as the utterance time varies.

- (84) A: 南希第几个节目?
Nánxī dì-jǐ-ge jiémù?
 Nancy sequence-which.number-CLF performance
 ‘Which performance is Nancy in?’
 B: 南希跳胡桃夹子。(while handing the programme to A)
Nánxī tiào Hútáojiāzi.
 Nancy dance The.Nutcracker
lit. ‘Nancy dance The Nutcracker.’¹⁷

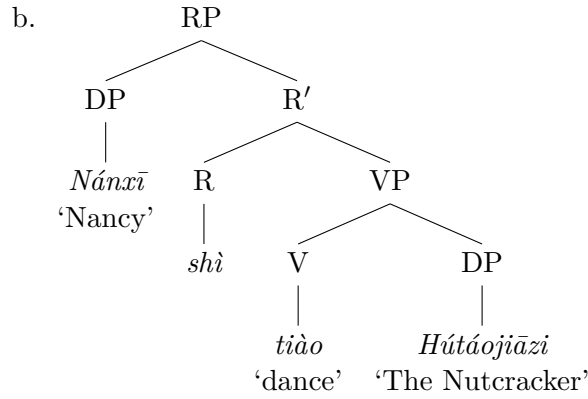
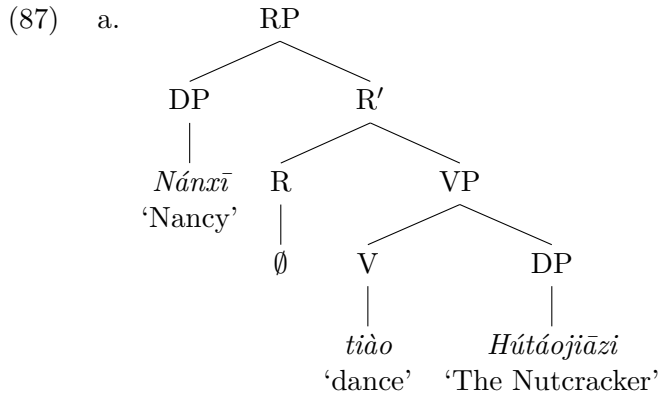
H. Cheng (2021) argues that these bare clauses are in effect paired relations, pairing up the subject with an activity or constituent related to that activity. (85) is another example with multiple clauses in the sentence, which better exemplifies the nature of pairings. Crucially, these bare clause are used to establish a paired relation between a subject and a VP. For instance, in (85), Nancy pairs with dancing The Nutcracker and El pairs with Swan Lake. No temporal information is encoded in the sentences. That is, when they perform is unknown from the texts and entirely irrelevant.

- (85) 南希跳胡桃夹子, 小十一跳天鹅湖。
Nánxī tiào Hútáojiāzi, xiǎoshíyī tiào Tiān'éhú.
 Nancy dance The.Nutcracker little.Eleven dance Swan.Lake
lit. ‘Nancy finish dancing The Nutcracker, El finish dancing Swan Lake.’

In structural terms, I propose that the relation between the subject and the VP is mediated by a copula, which may or may not be overt. As shown in (86), *shì* can occur in the sentences without giving rise to interpretative consequences. The combination of the subject and the predicate does not include any TP or AspP: it is truly bare. In other words, the lack of temporal encoding is interpreted as the absence of TP in the structure, which accounts for the underspecification of temporal interpretation of the event denoted by the bare predicates. The structures for the clauses in (85) and (86) are given in (87).¹⁸

¹⁷“*lit.*” indicates that the relevant verb in the English translation is given without inflection, which suggests that the temporal interpretation is unspecified or in any case not marked.

- (86) 南希是跳胡桃夹子, 小十一是跳天鹅湖。
Nánxī shì tiào Hútáojiāzi, xiǎoShíyī shì tiào
 Nancy COP dance The.Nutcracker, little.Eleven COP dance
Tiān'éhú.
 Swan.Lake
 ‘lit. Nancy dance The Nutcracker, El dance Swan Lake.’



6.6 Conclusion

This chapter discussed whether TP exists in Mandarin copular structures. I propose that on a par with non-copular sentences, copular sen-

¹⁸RP is used in H. Cheng (2021) and stands for RelatorP (Den Dikken 2006). RP can be substituted with *shi*P.

tences with stage-level predicates have TP, while those with individual-level predicates have no TP in the structure. The difference in the structure accounts for a number of distinctive properties in relation to the temporal structure between ILPs and SLPs. In particular, SLP sentences can combine with temporal adverbials, but ILP sentences cannot. When uttered in isolation, SLP sentences can only be felicitous if the subject is alive. No such restriction is imposed on ILP sentences. More crucially, ILPs show no past/present contrast at all.

