Davidsonian States, Kimian States, and Negation in Mandarin Chinese

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Outline of the talk

- Davidsonian States vs. Kimian States (Maienborn 2005)
- Davidson (1967)
- Neo-Davidsonian Paradigm (Higginbotham 1985, Parsons 1990)
- Davidsonian States vs. Kimian States (M.2005)
- Linguistic Diagnostics
- Negation in Mandarin Chinese
- Stage-level Adjectival Predicates in Mandarin
- Conclusion
Davidsonian States vs. Kimian States

Davidson (1967): an action sentence (i.e. a sentence with an action verb as its main predicate) makes reference to an event.

(1) John buttered the bread.

Davidsonian representation: \( \exists e.\text{BUTTER}(e, \text{john}, \text{the bread}) \)
Davidsonian States vs. Kimian States

Neo-Davidsonian Paradigm: *every predicate has an eventuality* (Bach 1986) *argument*. (Higginbotham 1985, Parsons 1990)

(1) John buttered the bread.

a. Davidsonian representation: $\exists e. \text{BUTTER}(e, \text{john}, \text{the bread})$

b. Neo-Davidsonian representation: $\exists e. \text{BUTTER}(e) \land \text{Agent}(e, \text{john}) \land \text{Theme}(e, \text{the bread})$. 
Davidsonian States vs. Kimian States

Neo-Davidsonian Paradigm expands Davidsonian eventuality argument to *every type of predicates*:

(2) John sat at the table.  
\[ \exists e. \text{SIT}(e) \land \text{Theme}(e, \text{john}) \land \text{AT}(e, \text{the table}) \]  

(3) John loves Mary.  
\[ \exists e. \text{LOVE}(e) \land \text{Experiencer}(e, \text{john}) \land \text{Patient}(e, \text{mary}) \]  

(4) John was happy.  
\[ \exists e. \text{HAPPY}(e) \land \text{Theme}(e, \text{john}). \]  

(5) John is smart.  
\[ \exists e. \text{SMART}(e) \land \text{Theme}(e, \text{john}). \]
Davidsonian States vs. Kimian States

Maienborn (2005): NOT every predicate has an eventuality argument. Specifically,

<table>
<thead>
<tr>
<th></th>
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<th>copula constructions (to be + Adj./N.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventuality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>non-eventuality</td>
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</tbody>
</table>
Davidsonian States \textit{v.s.} Kimian States

\textit{Linguistic Diagnostics for eventualities (M. 2005:280)}

Eventuality expressions:

\begin{itemize}
\item a. can serve as infinitival complement of perception verbs; (cf. Higginbotham 1983)
\item b. combine with locative and temporal modifiers;
\item c. combine with manner adverbials, instrumentals, etc.
\end{itemize}
Expressions with stative verbs or the copula verb, but not those with state verbs, systematically fail the above linguistic diagnostics.

a. as infinitival complement of perception verbs;

(6) *Ich hörte Carol die Antwort wissen. (statives)
I heard Carol the answer know

(7) *Ich sah Carol müde sein. (SLP)
I saw Carol tired be

(8) *Ich sah Carol blond sein. (ILP)
I saw Carol blond be

(9) Ich sah Carol am Fenster stehen. (states)
I saw Carol at.the window stand
b. combine with locatives;

(10) *Carol war im Auto blond. (ILP)
    Carol was in the car blond

(11) *Die Tomaten wiegen neben den Zwiebeln 1 Kg. (statives)
    the tomatoes weigh besides the onions 1 kg

(12) Die spanische Armada lag bei Calais vor Anker. (states)
    the Spanish Armada lay near Calais at anchor
b. combine with locatives:

(13) Carol war im Auto müde. (SLP) (cf. Kratzer 1995, a.o.)
    Carol was in.the car tired

M. (2005): ‘im Auto’ in (13) is a frame-setting modifier, which is not part of the VP. Thus, it is outside the scope of sentential negation, as shown in (13’).

(13’) Carol war im Auto nicht müde.

(13”’) Carol was nicht im Auto müde.
Davidsonian States vs. Kimian States

c. combine with manner, instrumental, etc adverbials:

(14) *Carol war unruhig   durstig.                            (SLP)
      Carol was restlessly thirsty

(15) *Carol war mit ihrer Tante Vegetarierin.         (ILP)
      Carol was with her aunt vegetarian.FEM

(16) *Paul besitzt sparsam viel Geld.                (statives)
      Paul owns thriftily much money

(17) Carol saß reglos    am Tisch.                    (states)
      Carol sat motionless at the table
Davidsonian States vs. Kimian States

Maienborn (2005): NOT every predicate has an eventuality argument.

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<tbody>
<tr>
<td>e</td>
<td>✔</td>
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</table>

Davidsonian States

Kimian States

A Kimian state: “a referential argument for a temporally bound property exemplification”
Negation in Mandarin

Mandarin has two negation markers: méiyǒu (没有) and bù (不). (Teng 1967, Hsieh 2001, Lin 2003, a.o.)

méiyǒu negates episodic sentences with action verbs:

(18) 张三打开 了门。
 Zhāngsān dǎkāi le mén.
‘Zhangsan opened the door.’

(19) 张三没有/(不)打开 门。
 Zhāngsān méiyǒu/( *bù) dǎkāi mén.
‘Zhangsan did not open the door.’

1Glosses: CL: classifiers; DUR: duratives; IR: irrealis; MOD: modifiers; PERF: perfective markers; POSS: possessives; R: realis.
Negation in Mandarin

*méiyǒu* also negates episodic sentences with state verbs:

(20) 老师 坐 在 桌子 上。
lǎoshī zuò zài zhuōzi shàng.
teacher sit at desk on
‘The teacher sat on the desk.’

(21) 老师 没有/(*不) 坐 在 桌子 上。
lǎoshī méiyǒu/(* bú) zuò zài zhuōzi shàng.
teacher not.R/(*not.IR) sit at desk on
‘The teacher did not sit on the desk.’

\(^2\) Tone sandhi: The falling tone of *bù* becomes a rising tone (i.e., *bú*) when there is another falling tone (in this case, it is *zuò*) follows it.
Negation in Mandarin

(22) 树下 站着 一个人。
shù xià zhàn zhe yí gè rén.
tree under stand DUR one CL people
‘There stood a person under the tree.’

(23) 树下 没有/(*不) 站着 一个人。
shù xià méiyǒu/(* bù) zhàn zhe yí gè rén.
tree under not.R/(*not.IR) stand DUR one CL people
‘There did not stand a person under the tree.’
Negation in Mandarin

$bù$ negates sentences with the copula verb, stative verbs, and adjectival predicates; $méiyǒu$ does not.

a. the copula verb $shì$ (是)

(24) 他是个好人。
$tā shì gè hǎorén.$
‘He is a good guy.’

(25) 他不(*没有)是个好人。
$tā bú/(*méiyǒu) shì gè hǎorén.$
‘He is not a good guy.’
Negation in Mandarin

b. stative verbs

(26) 他 知道 这个问题的答案。
 tā zhīdào zhèi gè wèntí de dá’àn.
 he know this CL question POSS answer
 ‘He knows the answer to the question.’

(27) 他不(/没有)知道这个问题的答案。
 tā bù(/méiyǒu) zhīdào zhèi gè wèntí de dá’àn.
 he not.IR(/not.R) know this CL question POSS answer
 ‘He does not know the answer to the question.’
Negation in Mandarin

c. adjectival predicates (*stage-level and individual-level*)

(28) 他 很 高兴。
    tā hěn gāoxìng.
    he very happy
    ‘He is happy.’

(29) 他 不/*没有*) 高兴。
    tā bù/*méiyǒu*) gāoxìng.
    he not.IR/*not.R) happy
    ‘He is not happy.’
Negation in Mandarin

(30) 他  非  聪明。
      tā  hěn  cōngmíng.
      he  very smart
     ‘He is smart.’

(31) 他  不/*没有)  聪明。
      tā  bù/*méiyǒu)  cōngmíng.
      he  not.IR/*not.R) smart
     ‘He is not smart.’
# Negation in Mandarin

To summarize: the distribution of negation markers

<table>
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<tr>
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<th>the copula verb</th>
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<tbody>
<tr>
<td>méiyǒu</td>
<td>✔️</td>
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<td>bü</td>
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</table>

- ✗ indicates negation is not possible.
- ✔️ indicates negation is possible.
Negation in Mandarin

If we follow Davidson’s (1967) original assumption that affirmative episodic sentences with action verbs denote eventualities and their negated counterparts negate eventualities, then the fact that méiyǒu negates affirmative episodic sentences with state verbs suggests that those sentences are also descriptions of eventualities. Similarly, the fact that méiyǒu cannot negate stative verbs, the copula verb shì, and adjectival predicates suggests that there is no eventuality argument in these predicates. This supports Maienborn’s (2005) claim.
Davidsonian States vs. Kimian States

Maienborn (2005): NOT every predicate has an eventuality argument.

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Davidsonian States

Kimian States

A Kimian state: “a referential argument for a temporally bound property exemplification”
Stage-level adjectival predicates in Mandarin do NOT take locatives as their arguments.

(32) 昨天，张三在图书馆找到了李四。
zuótiān, Zhāngsān zài túshūguǎn zhǎodào le Lìsì.
yesterday, Zhangsan at library find PERF Lisi
‘Zhangsan found Lisi in the library yesterday.’

(33) 昨天，张三在图书馆很开心。
zuótiān, Zhāngsān zài túshūguǎn hěn kāixīn.
yesterday, Zhangsan at library very happy
‘Zhangsan was very happy in the library yesterday.’
Stage-level Adjectival Predicates in Mandarin

a. Different paraphrases of the locatives:

(34) 昨天，张三在图书馆的时候很开心。
zuótiān, Zhāngsān zài túshūguǎn de shíhòu hěn kāixīn.
yesterday, Zhangsan at library MOD time very happy
‘Zhangsan was very happy when he was in the library yesterday.’

(35) 昨天，张三在图书馆的时候找到了李四。
zuótiān, Zhāngsān zài túshūguǎn de shíhòu zhǎodào le Lìsī.
yesterday, Zhangsan at library MOD time find PERF Lisi
‘Zhangsan found Lisi when he was in the library yesterday.’
Stage-level Adjectival Predicates in Mandarin

a. Different paraphrases of the locatives:

(33) 昨天， 张三 在 图书馆 很 开心。
zuótiān, Zhāngsān zài túshūguǎn hěn kāixīn.
‘Zhangsan was very happy in the library yesterday.’

(34) 昨天， 张 三 在 图书馆 的 时候 很 开心。
zuótiān, Zhāngsān zài túshūguǎn de shíhòu hěn kāixīn.
‘Zhangsan was very happy when he was in the library yesterday.’

(33) = (34)
Stage-level Adjectival Predicates in Mandarin

a. Different paraphrases of the locatives:

(32) 昨天，张三在图书馆找到了李四。
zuótiān, Zhāngsān zài túshūguǎn zhǎodào le Lìsì.
yesterday, Zhangsan at library find PERF Lisi
‘Zhangsan found Lisi in the library yesterday.’

(35) 昨天，张三在图书馆的时候找到了李四。
zuótiān, Zhāngsān zài túshūguǎn de shíhòu zhǎodào le Lìsì.
yesterday, Zhangsan at library MOD time find PERF Lisi
‘Zhangsan found Lisi when he was in the library yesterday.’

(32) ≠ (35): ‘in the library’ in (32) denotes the location of the finding-event; not a temporal phrase as ‘when he was in the library’.
a. Different paraphrases of the locatives:

(32’) 昨天，张三 没有 在 图书馆 找到 李四。
zuótiān, Zhāngsān méiyǒu zài túshūguǎn zhǎodào Lǐsì.
yesterday, Zhangsan not.R at library find Lisi
‘Zhangsan did not find Lisi in the library yesterday.’

(35’) *昨天，张三 没有 在 图书馆 的 时候
zuótiān, Zhāngsān méiyǒu zài túshūguǎn de shíhòu
yesterday, Zhangsan not.R at library MOD time

找到 李四。
zhǎodào Lǐsì.
find Lisi

(32’) ≠ (35’)
b. Different discourses:

(36)

A: 昨天，张三 找到 了 李四。
zuótiān, Zhāngsān zhǎodào le Lǐsì.
yesterday, Zhangsan find PERF Lisi
‘Zhangsan found Lisi yesterday.’

B: 在 哪儿 找到 的?
zài nǎr zhǎodào de?
at where found DE
‘Where did he find him?’

A: 在 图书馆。
zài túshūguǎn.
at library
‘In the library.’
Stage-level Adjectival Predicates in Mandarin

b. Different discourses:

(37)

A: 昨天，张三 很 开心。
zuótiān, Zhāngsān hěn kāixīn.
 yesterday, Zhangsan very happy
‘Zhangsan was happy yesterday.’

B: ??在 哪儿?
zài nǎer?
at where?
‘??Where was he happy?’
Stage-level Adjectival Predicates in Mandarin

c. scope interaction with (sentential) negation: (Huang 1982)

(32’) 昨天，张三 没有 在 图书馆 找到 李四。
zuótiān, Zhāngsān méiyǒu zài túshūguǎn zhǎo dào Lǐsì.
yesterday, Zhangsan not.R at library find Lisi
‘Zhangsan did not find Lisi in the library yesterday.’

(38) *昨天，张三 没有/不 在 图书馆 很 开心。
zuótiān, Zhāngsān méiyǒu/bú zài túshūguǎn hěn kāixīn.
yesterday, Zhangsan not.R/not.IR at library very happy

(39) 昨天，张三 在 图书馆 不 开心。
zuótiān, Zhāngsān zài túshūguǎn bù kāixīn.
yesterday, Zhangsan at library not.IR happy
‘Zhangsan was not happy in the library.’

(32’): the locative is under the scope of sentential negation --> the locative is part of VP; (39): the locative is outside the scope of negation --> not part of SLPs.
d. the position of sentential adverbs:

(40) 昨天，张三 (显然) 在 图书馆 (显然) 找到了 李四。
zuótiān, Zhāngsān (xiǎnrán) zài túshūguǎn (xiǎnrán) zhǎodào le Lǐsì.
yesterday, Zhangsan (obviously) at library (obviously) find PERF Lisi
‘Zhangsan (obviously) found Lisi (*obviously) in the library yesterday.’

(41) 昨天，张三 （显然） 在 图书馆 （显然） 很 开心。
zuótiān, Zhāngsān (xiǎnrán) zài túshūguǎn (xiǎnrán) hěn kāixīn.
yesterday, Zhangsan (obviously) at library (obviously) very happy
‘Zhangsan obviously was very happy (*obviously) in the library yesterday.’

(40): the sentential adverb cannot be below the locative --> the locative is part of VP; (41): the sentential adverb can be below the locative --> the locative is not part of SLPs.
Locative expressions in sentences with stage-level adjectival predicates have different syntactic positions and semantic interpretations as those in action sentences.

If action sentences denote eventualities that have spatial properties, and locative expressions, if present, are part of the VP, then the fact that locative expressions are not part of SLPs suggests that SLPs do not have eventuality arguments, which is consistent with Maienborn 2005.
To conclude:

- the distribution of negation markers in Mandarin has been shown to lend support to Maienborn’s (2005) claim for a finer ontological classification;

- language-internal arguments have been given to show that stage-level adjectival predicates in Mandarin do not have constitutive locative arguments, which is consistent with Maienborn’s (2005) claim that sentences with stage-level predicates also denote Kimian states, the same as individual-level predicates do.
References


Thank you!