At the crossroads of aspect and passivization: Agent in Mandarin locative inversion

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Introduction

- This talk addresses the following question: What is the role of grammatical aspect for the accessibility of agent in passivization?
- New data from Mandarin Locative Inversion (LI) show that there is a contrast between imperfective/ perfective aspect against the agent tests, which points towards a necessity to reflect aspectual information in the structure of passive participles.

Mandarin LI

Mandarin LI: aspect alternation & passivization

Aspect markers: *-zhe* and *-le*[1]. *-zhe* is an imperfective marker, *-le* is a perfective marker (LI-*zhe* for imperfectively marked LI, LI-*le* for the perfectively marked).

Although Mandarin does not have overt morphological marking on verbs for passivization, Mandarin LI bears the hallmark of a passive environment:

- the agent is absent from the surface structure, while the subject position is occupied by a locative, thus LOC V NP

- only unaccusatives and transitives can appear in LI[2], but not unergatives such as 'work', 'eat'

Transitive *ke* 'carve'

3. [$_{LOC}$ Zhuo-shang]   ke   **-zhe**/**-le**   sige   zi.
   Desk-on   carve   IMPF/PERF   4.CL   characters
   'On the desk four characters have been carved.'

Unaccusative *piao* 'float'

4. [$_{LOC}$ He-li]   piao   **-zhe**/**-le**   yizhi   zhichuan.
   River-in   float   IMPF/PERF   1.CL   paper.boat
   'In the river a paper boat is floating/ has floated.'

Unergative *chi* 'eat'

5. *[$_{LOC}$ Zhuo-shang]   chi   **-zhe**/**-le**   liangge ren.
   Table-on   eat   IMPF/PERF   2.CL   person
   Intended: 'On the table two people are eating.'

Since we're dealing with agentivity in this talk, the following discussion applies only to **transitive verbs** in LI.

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[1] On the surface, LI can also combine with the progressive marker *-zai*. However, I suggest the progressive LI is not a passivized environment because of the following features specific to progressive LI:
    i) the instrumental/locative P can be understood as the agent
    [$_{LOC}$ Xiyiji-li]   **zai**   xi   yifu.
    Washing machine-in   PROG   wash   clothes
    'Washing machine (inside) is washing clothes.'
    ii) the agent can be a pro
    [$_{LOC}$ Zhuozi-shang]   *pro*   **zai**   chifan.
    Table-on   PROG   eat
    'Someone is eating on the table.'
Since the agent is available either as locative/instrumental or *pro* in progressive LI, it is irrelevant to our discussion here on passivization.
[2] Parallel to Bresnan & Kanerva (1989) regarding Chichewa LI, in the sense that motion verbs such as *pao* 'run', *fei* 'fly' that appear in the Mandarin LI are also categorized as unaccusatives.

Mandarin LI is a resultative construction

Transitive Mandarin LI shows a canonical feature of the resultative construction: Direct Object Restriction (DOR) (Levin & Hovav, 1995); the result XP must modify the logical object of the clause.

6. John hammers the metal flat. (*flat* modifies only *metal*, not the whole event)

7. [Loc Di-shang]   xie   -**zhe**/-**le**   sige   zi.
   Floor-on   write   IMPF/PERF   4.CL   characters
   'On the floor four characters have been written.'
   ('floor-on' can only modify the post-verbal NP 'characters')

The eventivity of Mandarin LI must be more complicated than a pure state. As a resultative construction, it 'typically indicates a result(ed) state and is telic'(Beavers, 2012).

Semantics of LI-*zhe*/-*le*: The imperfective LI-*zhe* denotes 'resultative' (in Embick (2004)'s sense), describing the state resulted from a prior event. The perfective LI-*le* emphasizes more on the completeness of the event (Comrie, 1978).

Agent tests & Resultative statives

Below shows how aspect interacts with the accessibility of agentivity for resultative stative passives.

<Agentive by-phrase>

8. The door seemed opened (*by Mary).
   seem/remain selects states

9. Der   Fisch   war (*von Maria)   gebraten.
   The   fish   was by Mary   fried
   intended: 'The fish was fried by Mary.' (Anagnostopoulou, 2003)
   German auxiliary *sein* 'be' selects states

10. Ta   lastixa ine   fusko-**mena**   apo   tin Maria
    The   tires   are   inflated   by   the Mary
    'The tires are inflated by Mary'
    Greek -*menos* is a resultative stative participle & has a 'Perfect of Result' reading (Alexiadou & Anagnostopoulou, 2008)

11. Kupola   mi   se   čini   **o**-slikana   od   strane   (ovih)   umetnika.
    dome   me   SE   seems   PERF-painted   by   side   these   artists
    lit. 'The dome seems to me painted by (these) artists.' (Bešlin, 2022)
    Serbo-Croatian (henceforth SC)

12. [Loc Dishang] bei John   ke   *-**zhe**/-**le**   sige zi.
    Floor.on   by John   carve   IMPF/PERF   4.CL words
    'On the floor 4 words have been carved by John.'
    Mandarin LI (Pan, 1996)

*English/*German/*LI-zhe / Greek (-perfect)/ SC (-perfective)/ LI-le

<Event-modifying adverb: time, location, manner>

13. The recently *open/opened door

14. Der Brief ist mit (??diesem) Bleistift geschrieben. (Alexiadou et al., 2014)
    The letter is with this   pencil   written
    'The letter is written with this pencil.'

15. To   pedi   itan   htenis-**meno**   sto banio.
    The   child   was   combed   in the bathroom
    'The child was combed in the bathroom.'

16. Prozor   je   ostao   nasilno **iz**-lomljen   od strane huligana.
Window   COP.3SG remained violently   PERF-broken   by side hooligans
lit. 'The window remained violently broken by the hooligans.'

17. [$_{LOC}$ Zhi-shang] zuijin   xie   *-**zhe**/-**le**   sige   zi.
Paper-on   recently   write   IMPF/PERF   4.CL   words
Intended: 'On the paper 4 words were written recently.' ('recently' modifies the event, not state)

*English/??German/*LI-zhe / Greek (-perfect)/ SC (-perfective)/ LI-le

<Purpose clause>

18. The investigation launched by the prosecution remained limited in order to protect the police. (McIntyre, 2013)

19. Die   Partition   ist   versteckt,   um   ein   versehentliches Löschen
        partition   is   hidden   in-order an   unintended   erasing

der   Dateien zu   verhindern.
the.GEN   data   to   prevent
'The partition is hidden in order to avoid that it gets deleted by mistake.'

20. Aftos o   pinakas   ine   zografis-**menos**   apo   mia omadha   aktiviston
This   the   painting   is   painted   by   a group   activists-GEN

gia na sokarun   tus anthropus
for to shock-pl   the people
'This painting is painted by a group of activists in order to shock the people'

21. Ta$_j$ de zhuozi-shang   fang   -**zhe**/-**le**   jizhi   hen da de   si   chongzi,
[$_{LOC}$ His desk-on]   put   IMPF/PERF   several.CL   very big RLTV dead   bugs

[PRO$_k$ weile   xiahu   ta$_j$].
       in-order   scare   him
'Several big dead bugs are put on his desk to scare him.'

English/German/LI-zhe /Greek (-perfect) /LI-le

<u>Interim summary</u>

- German/English verb stems do not encode grammatical aspect, and thus disallow agentive by-phrase/ event-modifying adverbs. In contrast, Greek/SC resultative statives all contain perfect(ive) morphology and pass all agentivity tests.

- Imperfective LI-*zhe* aligns with non-perfective English/German, perfective LI-*le* aligns with Greek/SC.

- Q: How to account for this aspect split? Why resultative statives only fail some of the tests?

Analysis

- Compared with Greek/SC, Mandarin shows a full pattern of contrast between aspects. Greek verbs in general can encode aspectual distinction, but the relevant participle is only derived from perfect stem (Alexiadou et al., 2014). As for SC, imperfective is incompatible with stative contexts (Bešlin, 2022):

22. *Ova vaza   se   čini   lomljena   (od strane nestašnih patuljaka).
This vase   SE   seems   broken (IMPF)   by side mischievous dwarfs
lit. 'This vase seems being broken by the mischievous dwarfs.'

<u>Structure</u>

We follow Embick (2004), who proposed that whether participles incorporate agents/full eventivity can be boiled down to their structural differences. Agentivity and eventivity are tied respectively to functional categories, i.e., *Voice* and *v*.

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I propose that all resultative stative participles have a Voice P layer introducing the agent. This echoes Alexiadou et al., (2014) and explains the control data of non-perfectives in (18)-(20), since they should be taken as evidence that there is an implicit agent.

Departing from Alexiadou et al., (2014) and joining Bešlin (2022): the only difference between perfective/non-perfective resultative statives is in the aspectual layer, as shown in (23)-(24). This structure is superior to the structure that ties agentivity to a verbal/adjectival head because the latter is unable to capture the Mandarin LI data, where there are only verbal passive participles.

23. LI-*le*/ Greek -*menos*/ SC   [ASP$_{PERF}$ [Voice P   [vP…]]]

24. LI-*zhe*/ English/ German   [ASP$_{IMPF}$/STATE [Voice P   [vP…]]]

I hypothesize that with non-perfectives, there is a layer of ASP$_{IMPF}$ or stativizer head above Voice P. The intuitive idea is that only the state is accessible after adding this head into the structure. This could potentially explain why non-perfectives cannot pass the by-phrase tests and event-modifying tests; the event is no longer accessible after the stativizing operation (I leave it open why the Voice P is still accessible after such stativization).

<u>Only the outer layer matters: secondary imperfectives</u>

Data from SC secondary imperfectives (sec. impf.) support that what matters seems to be the outer aspectual layer, not the internal aspectual structure: Sec. impf. are built from perfectives and thus incorporates a perfective layer, however, it patterns with imperfectives rather than perfectives.

25. *Ova kupola se   čini   **o**-slik-a-va-n-a   od strane (ovih) umetnika.
    This dome SE   seems   PERF-paint-V-SI-ADJ-FEM.SG   by side these   artists
    lit. 'The dome seems to me painted by (these) artists.'

Beslin (2022): sec.impf. aligns with simple imperfectives since it can't appear in a stative environment.

Glushan (2013) makes a similar observation that only imperfectives can appear in Russian LI, but not perfectives; sec. impf. pattern with imperfectives in its compatibility with LI.

For SC sec. impf., the stativizing ASP$_{IMPF}$ blocks ASP$_{PERF}$ in the lower layer.

26. LI-*zhe*/ English/ German /SC sec.impf.   [ASP$_{IMPF}$/STATE ([ASP$_{PERF}$) [Voice P   [vP…]]]

<u>Implications</u>

- For the perfectives, (23) predicts that resultative statives that are marked perfective will not differ from eventive participles in passing all kinds of agentivity/eventivity tests. As we have seen, this is indeed the case.

- As for non-perfectives (24), a stativizing account explains the ungrammaticality of by-phrase/event-modification as well as the SC sec. impf. data (25).

Conclusion

The contrast between imperfective/perfective Mandarin LI, added to the data from Greek & SC, implies that it is the aspectual differences, not lexical categorical information (adj/v) that has an impact on agentivity. Mandarin data point towards an analysis to zero in on aspect instead of adj/ differences, as well as capturing why non-perfect(-ives) can pass some of the agent tests (control).

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