# Subject- and object-oriented transitive resultatives in Thai 

Resultatives: new approaches and renewed perspectives

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## Motivation

## Why do some languages have resultatives with very flexible argument realisation patterns?

## Argument structure in resultatives

The interpretation of arguments in a resultative is subject to constraints:
(1) Tracey wiped the table clean.
$\frac{x}{x}$
(2) Tracey wiped the table happy.

## Direct Object Restriction

## Direct Object Restriction (DOR)

A result phrase can only be predicated of the internal argument of the resultative.
(Simpson 1983; Levin and Rappaport Hovav 1995)

## Subject-oriented resultatives (SORs)

English:
(3) *The baby ${ }_{i} \operatorname{cried}[\underline{\theta}]$ awake $t_{i}$.

Mandarin:
(4) Xiǎo bǎobao ${ }_{i}$ kū-xǐng-le $t_{i}$.
little baby cry-awake-pFV
'The little baby cried [herself] awake.'
(Huang 2006:7)

See Williams (2005) and Huang (2006).

## Flexibility in Mandarin V-V resultatives

In Mandarin V-V resultatives, in an out-of-the-blue context, V1 may fail to project its agent...
(5) Yīfú $x i ̌$-gānjìng-le.
clothes wash-clean-pFV
'The clothes got clean from washing [i.e. being washed].'
(Williams 2005:161)
...its theme...
(6) $\bar{A} k i \bar{u}$ tī-pò-le qiúxié.

Akiu kick-break-PFV sneakers
'The sneakers broke from Akiu kicking [something].'
(Zhang 2001:195)
...or both.
(7) \%Qiúxié tī-pò-le.
sneakers kick-break-PFV
'The sneakers broke from [someone] kicking [something].'

## Recap

■ In English resultatives, V1 must project its arguments.
$\rightarrow$ English only has (deep) object-oriented resultatives (OORs).

■ In Mandarin V-V resultatives, V1 never projects any of its arguments. $\rightarrow$ Mandarin has OORs, (apparent) SORs, etc.

- (More on Wednesday...)


## Puzzle: Much less flexibility in Thai resultatives...

In Thai resultatives, in an out-of-the-blue context, V 1 seems not to be able to omit its agent...
(8) ${ }^{*}$ st̂a sák sà $1 a ̀ a t$
shirt wash clean
Intended: 'The shirt was washed clean.'
...its theme...
(9) thána: tè ro:ytháa:w $k^{h} a ̀: t$

Thana kick shoes torn
'The shoes became torn from Thana kicking [the shoes].'
Not: 'The shoes became torn from Thana kicking [something else, e.g. a football].'
...or both.
(10) *ro:yt ${ }^{h} a ́: w ~ t \grave{e} \quad k^{h} a ̀: t$
sneakers kick torn
Intended: 'The shoes became torn from [someone] kicking [something].'

## Puzzle: ...but Thai has SORs


I run tired
'I ran until I was tired.'
(Muansuwan 2002:216)

## Claim: OORs and SORs have distinct structures

(13) thána: kin $k^{h} \widehat{a ̂}: \underset{w o t}{ }$

Thana eat rice empty
'The rice became empty as a result of Thana eating it.'
(14) $t^{h a ̊ n a: ~ k i n ~} k^{h} a ̂: w ~ R i m ~$

Thana eat rice full
'Thana became full as a result of eating rice.'
(15) thána: kin $k^{h}$ â:w lé wâ:jnám

Thana eat rice and swim
'Thana ate rice and swam.'

## Claim: OORs and SORs have distinct structures

Thai has:

- satellite-framed resultative secondary predicates (=OORs)

■ verb-framed "means constructions" (=SORs) (cf. Hopperdietzel 2020)
(16) OOR:

(17) SOR:

(18) coordination:


## Independent modification of V2

V2 can be independently modified by a for-adverbial in SORs and coordinate structures but not OORs.
(19) *thána: kin khâ:w mòt thágwan

Thana eat rice empty all.day
Intended: 'Thana ate rice and as a result the rice has been empty all day.'
(20) thána: kin $k^{h} a ̂: w ~ R i m ~ t^{h} a ́ y w a n$

Thana eat rice full all.day
'Thana ate rice and as a result he was full all day.'
(21) thána: kin $k^{h} \hat{a}: w$ (lé) wâ:jnám $t^{h} a ́ \eta w a n$

Thana eat rice and swim all.day
'Thana ate rice and swam all day.'

## Independent modification of V2

This pattern is explained if a for-adverbial cannot modify a 'become' event in an OOR, but can modify a state in an SOR or an activity in a coordinate structure.
(22) OOR:

(23) SOR:

(24) coordination:


## Diagnostics

|  | OOR | SOR | Coordination |
| :--- | :--- | :--- | :--- |
| I. Coordination of O and V2 |  |  |  |
| II. O and V2 in topic position |  |  |  |
| III. Movement of O |  |  |  |
| IV. O in topic position |  |  |  |
| V. Discontinous O and Num+Cl |  |  |  |
| VI. Verb-echo answers |  |  |  |

## I. Coordination of O and V2

O and V2 can be coordinated in two OORs.
(25) $k^{h}$ wa:j $k^{h}$ wit t c $^{h} a ́: y \quad$ bà̀:ttcèp
buffalo butt elephant injured
'The elephant became injured from the buffalo butting (it).'
(26) $k^{h}$ wa:j $k^{h}$ wit ?ua: ta:j
buffalo butt cow dead
'The cow died from the buffalo butting (it).'
(27) ? $k^{h}$ wa:j $k^{h}$ wit [tçáa:y bà:ttcèp] (lé) [?ua: ta:j] buffalo butt elephant injured and cow dead
'The elephant became injured and the cow died from the buffalo butting (them).'
(OOR+OOR)

## I. Coordination of O and V2

O and V2 cannot be coordinated in two SORs.
(28) thána: kin $k^{h} \hat{a}: w ~$ Rìm

Thana eat rice full
'Thana became full from eating rice.'
(29) thána: kin lâw maw

Thana eat whiskey drunk
'Thana became drunk from drinking whiskey.'
(30) *thána: kin [k $\left.{ }^{h} \hat{a}: w ~ R i ̀ m\right] ~(l e ́) ~[l a ̂ w ~ m a w] ~$

Thana eat rice full and whiskey drunk
Intended: 'Thana became full from eating rice and drunk from drinking whiskey.'

## I. Coordination of O and V2

This pattern is explained if O and V2 form a constituent in an OOR but not in an SOR.
(31) OOR+OOR:


## II. O and V2 in topic position

O and V2 can appear in topic position in OORs but not SORs or coordinate structures.
(32) [tcc ${ }^{h}$ á: $\boldsymbol{y}$ bà̀:tccèp $]_{i}$ ná, $k^{h}$ wa:j $k^{h}$ wit $\boldsymbol{e}_{i}$
elephant injured PRT buffalo butt
'The elephant became injured as a result of the buffalo butting (it).
(It wasn't that the cow died.)'
(33) *[k $\left.k^{h} \hat{a}: w ~ R i m\right]_{i}$ ná, thána: kin $\boldsymbol{e}_{\boldsymbol{i}}$
rice full PRT Thana eat
Intended: 'Thana became full from eating rice.
(It's not that he's drunk from drinking whiskey.)'
(34) *[k $k^{h} \hat{a}: w$ (lé) wâ:jnám $]_{i}$ ná, thána: kin $\boldsymbol{e}_{i}$
rice and swim PRT Thana eat
Intended: 'Thana ate rice and swam.'

## II. O and V2 in topic position

This pattern is explained if O and V2 form a constituent in OORs but not SORs or coordinate structures.
(35) OOR:


## III. Movement of O

O can be extracted out of V1 via relative clause formation in OORs but not in SORs or coordinate structures.
(36) nî: kì: $k^{h} \hat{a}: w_{i} t^{h} \hat{\imath}: \quad t^{h} a ́ n a: ~ k i n ~ t_{i} ~ m o ̀ t ~$ this is rice that Thana eat empty
'This is the rice that Thana ate empty.'
(37) ??n̂̂: kit: $k^{h} \hat{a}: w_{i} t^{h} \hat{\imath}: \quad t^{h} a_{n a: ~}^{n}$ kin $t_{i}$ ?im this is rice that Thana eat full Intended: 'This is the rice that Thana ate and became full.'
(38) *nî: kí: $k^{h} \hat{a}: w_{i} t^{h} \hat{i}: \quad t^{h} a ́ n a: ~ k i n ~ t_{i}$ (lé) wâ:jnám this is rice that Thana eat and swim Intended: 'This is the rice that Thana ate and swam.' (coordination)

## III. Movement of O

This pattern is explained if O can move out of a complement but not an adjunct or one conjunct of a coordinate structure.
(39) OOR:

(40) SOR:

(41) coordination:


## Interim conclusion

|  | OOR | SOR | Coordination |
| :--- | :---: | :---: | :---: |
| I. Coordination of O and V2 | $?$ | $\boldsymbol{X}$ | - |
| II. O and V2 in topic position | $\checkmark$ | $X$ | $X$ |
| III. Movement of O | $\checkmark$ | $? ?$ | $\boldsymbol{X}$ |
| IV. O in topic position |  |  |  |
| V. Discontinous O and Num+Cl |  |  |  |
| VI. Verb-echo answers |  |  |  |

## IV. O in topic position

O can appear in topic position in OORs and SORs but not coordinate structures (Sudmuk 2005).
(42) $k^{h} \hat{a}: w_{i}$ ná, thána: kin $\boldsymbol{e}_{\boldsymbol{i}}$ mòt rice PRT Thana eat empty
'As for rice, Thana ate empty.'
(43) $k^{h} \hat{a}: w_{i}$ ná, thána: kin $\boldsymbol{e}_{\boldsymbol{i}}$ Tim
rice PRT Thana eat full
'As for rice, Thana ate and became full.'
(44) * $k^{h} \hat{a}: w_{i}$ ná, thána: kin $\boldsymbol{e}_{i}$ (lé) wâ:jnám
rice PrT Thana eat and swim
Intended: 'As for rice, Thana ate and swam.'

## IV. O in topic position

This pattern is explained if a topic can be associated with an empty category in an OOR or an SOR but not in one conjunct of a coordinate structure.
(45) OOR:

(46) SOR:

(47) coordination:


## V. Discontinous O and Num +Cl

In Thai, a numeral and classifier phrase can be discontinuous from the noun it is associated with.
(48) Tát hâj năysŭi thúk lêm Bill

Tat give book every CL Bill
'Tat gave all of the books to Bill.'
(Jenks 2011:266)
(49) Tát hâj năysüi Bill thúk lêm

Tat give book Bill every CL
'Tat gave all of the books to Bill.'
(Jenks 2011:266)

## V. Discontinous O and Num +Cl

A numeral and classifier phrase can be discontinuous from O in OORs.
(50) thána: kin $k^{h} \hat{a}: w$ să:m tca:n mòt

Thana eat rice three plate empty
'There was one event in which Thana ate three plates of rice and as a result the rice became empty.'
(51) thána: kin kâa:w mòt să:m tça:n Thana eat rice empty three plate
'There were three events in which Thana ate one plate of rice and as a result the rice became empty.'

## V. Discontinous O and Num +Cl

A numeral and classifier phrase can be discontinuous from O in SORs.
(52) thána: kin $k^{h} \hat{a}: w$ să:m tca:n him

Thana eat rice three plate full
'There was one event in which Thana ate three plates of rice and as a result he became full.'
*'There were three events in which Thana ate one plate of rice and as a result he became full.'

Thana eat rice full three plate
*'There was one event in which Thana ate three plates of rice and as a result he became full.'
'There were three events in which Thana ate one plate of rice and as a result he became full.'

## V. Discontinous O and Num +Cl

A numeral and classifier phrase cannot be discontinuous from O in coordinate structures.
(54) thána: kin $k^{h} \hat{a}: w$ să:m tça:n (lé) wâ:jnám

Thana eat rice three plate and swim
'There was one event in which Thana ate three plates of rice and swam.'
(55) *thána: kin kâàw (lé) wâ:jnám să:m tça:n Thana eat rice and swim three plate Intended: 'There were three events in which Thana ate one plate of rice and swam.'

## V. Discontinous O and Num +Cl

We assume that the Num +Cl phrase is an adverbial modifier. This adverbial modifier can be associated with O in an OOR or an SOR, but not with O in one conjunct of a coordinate structure.
(56) OOR:

(57) SOR:

(58) coordination:


## VI. Verb-echo answers

V2 in OORs and SORs can be used as an answer to a polar question while V2 in coordinate structures cannot.
(59) thána: kin $k^{\text {hâa:w }\{m o ̀ t / ~ R i m / ~(l e ́) ~ w a ̂: j n a ́ m\} ~ r i ̌ i ~}$
thana eat rice empty full and swim or
'Did Thana \{eat the rice empty/ eat and become full/ eat and swim\}?'
(60) $\left\{t c^{h} \hat{a} j / m o ̀ t\right\}$
right empty
'Yes, (Thana ate the rice empty).'
(61) $\left\{t c^{h} \hat{a} j / ~\right.$ ?im $\}$
right full
'Yes, (Thana ate rice and became full).'
(62) $\left\{t t^{h} \hat{a} \hat{j} /{ }^{*}\right.$ wâ:jnám\}
right swim
'Yes, (Thana ate rice and swam).'

## VI. Verb-echo answers

We follow Yaisomanang (2012) and Holmberg (2016) in analysing these polar questions and their responses.

- A polar question with $r$ riti 'or' has the underlying structure of an alternative question but with the second conjunct deleted.
- A verb-echo answer to a polar question with rīì 'or' has a similar basic structure as the question, but the verb appears in a higher position (e.g. a focus position) and the rest of the structure is deleted.


## VI. Verb-echo answers

OOR:

(64)


## VI. Verb-echo answers

## SOR:

(65)



## VI. Verb-echo answers

## Coordination:

(67)

(68)




## Conclusion

|  | OOR | SOR | Coordination |
| :--- | :---: | :---: | :---: |
| I. Coordination of O and V2 | $?$ | $X$ | - |
| II. O and V2 in topic position | $\checkmark$ | $X$ | $X$ |
| III. Movement of O | $\checkmark$ | $? ?$ | $X$ |
| IV. O in topic position | $\checkmark$ | $\checkmark$ | $X$ |
| V. Discontinous O and Num+Cl | $\checkmark$ | $\checkmark$ | $X$ |
| VI. Verb-echo answers | $\checkmark$ | $\checkmark$ | $X$ |

Our proposal naturally predicts that OORs and SORs exhibit different structural and interpretive properties, contra Muansuwan (2002) and Sudmuk (2005) who propose that OORs and SORs have the same structure.

## Motivation

- Why do some languages have resultatives with very flexible argument realisation patterns?


## Conclusion

- In English and Thai resultatives, V1 must project its arguments. $\rightarrow$ English and Thai only have (deep) object-oriented resultatives (OORs).

■ In Mandarin V-V resultatives, V1 never projects any of its arguments. $\rightarrow$ Mandarin has OORs, (apparent) SORs, etc.

- (More on Mandarin V-V resultatives on Wednesday...)


## References I

Holmberg, Anders. 2016. The syntax of yes and no. Oxford: Oxford University Press, first edition edition.
Hoonchamlong, Yuphaphann. 1991. Some issues in Thai anaphora: A government and binding approach. Doctoral Dissertation, University of Wisconsin-Madison.
Hopperdietzel, Jens Philipp. 2020. Resultatives: a view from Oceanic verb serialization. Doctoral Dissertation, Humboldt-Universität zu Berlin.
Huang, James. 2006. Resultatives and unaccusatives: A parametric view. Bulletin of the Chinese Linguistic Society of Japan 2006:1-43.
Jenks, Peter. 2011. The hidden structure of Thai noun phrases. Doctoral Dissertation, Harvard University.

## References II

Levin, Beth, and Malka Rappaport Hovav. 1995. Unaccusativity: At the syntax-lexical semantics interface. Cambridge, MA: MIT Press.
Muansuwan, Nuttanart. 2002. Verb complexes in Thai. Doctoral Dissertation, University at Buffalo, The State University of New York. Neeleman, Ad, Joy Philip, Misako Tanaka, and Hans van de Koot. 2023. Subordination and binary branching. Syntax 26:41-84.
Simpson, Jane. 1983. Resultatives. In Papers in Lexical-Functional Grammar, ed. Lori Levin, Malka Rappaport, and Annie Zaenen, 143-157. Bloomington: Indiana University Linguistics Club.
Sudmuk, Cholthicha. 2005. The syntax and semantics of serial verb constructions in Thai. Doctoral Dissertation, University of Texas at Austin.

## References III

Williams, Alexander. 2005. Complex causatives and verbal valence. Doctoral Dissertation, University of Pennsylvania.
Yaisomanang, Somphob. 2012. The syntax of yes-no questions and answers in Thai. Doctoral Dissertation, Newcastle University.
Zhang, Niina. 2001. The structures of depictive and resultative constructions in Chinese. ZAS Papers in Linguistics 22:191-221.

