

# Thematic interpretation of causee in Teochew 'give'-causative\*

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## 1 Introduction

- Much recent syntactic work has converged on a view that the Agent external argument is introduced by a functional head Voice, and is assigned an interpretation by the event structure of its syntactic complement (Kratzer, 1996)
  - This analysis has been fruitfully extended to arguments including Causer, Applied, Holder, and Figure external arguments (e.g., Kratzer, 1996; Pylkkänen, 2002/2008; Alexiadou et al., 2015; Woods&Marantz, 2017)
  - Some recent work has noted that the thematic status of the causee, as one type of external arguments, in certain periphrastic causatives is problematic:
    - More specifically, it fails all or some of the agentive diagnostics converged in recent studies, and yet the causee appears to be introduced by VoiceP
- Some examples:<sup>1</sup>
- \* Causee in Acehnese *bak* causative (Legate, 2014)
  - \* Causee in Turkish *-Dir* causative (Nie, 2020, 2022; an updated analysis of Key (2013))
  - \* Unmarked and instrumental causee in isiXhosa causative (Myler&Mali, 2021)
  - \* Implicit causee in Icelandic 'let'-causative (Sigurðsson&Wood, 2022)
- This paper
    - examines **the contextualization conditions**, under which this behavior arises through an analysis of the *kə* 'give'-causative in Teochew (Southern Min, Sinitic) (1)

- (1) *Nangy kə Mimi tsao.*  
Nangy give Mimi run  
'Nangy causes Mimi to run.'  
(Lit. 'Nangy gives the running event to Mimi.')

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<sup>1</sup>Similarly, Nash (2017, 2020) observes a 'deagency' interpretation of the causee in Georgian *a...in* causative, and Akkuş (2021, 2022) also show the causee in the geminative causative and the Give causative in Sason Arabic fail all the agentive diagnostics, but in their analyses, the nonagentive causee is not introduced by VoiceP.

- argues that, at least in the case of Teochew *kə*-caustaive, the interpretation of the causee is **contextualized by the causal event structural interpretation determined by the modal properties of the syntactically-higher causative verb**
- presents a syntactic and semantic implementation in which, building particularly on recent work (Wood&Marantz, 2017; Biggs&Embick, 2022), **the syntactico-semantic properties of an argument are contextually determined by the syntactic and event structural context in which it occurs, rather than being listed with individual verbs, or specific syntactic positions**
- Roadmap:
  - Section 2: Data and puzzle
  - Section 3: Syntactic argument structure
  - Section 4: Causal event structural interpretation
  - Section 5: Contextual interpretation of causee
  - Section 6: Summary and implications
  - Appendix: Implicit causee

## 2 Data and puzzle

- Language background
  - Teochew, also known as *chaoshanhua* or *chaozhouhua* in Mandarin, is an understudied variety of Southern Min, Sinitic languages with a basic SVO word order
  - It is spoken in the Teochew region (*Chaoshan* in Mandarin; *Teoswa* in Teochew) located in the eastern part of Guangdong Province, China and most Southeastern Asian countries like Thailand, Vietnam, Malaysia and Singapore
  - Known as ‘the most ancient and distinctive existing dialect in China’ and the ‘living fossil of Old Chinese’ (Karlgren, 1934), it has eight citation tones and complex tone sandhi patterns (Zhang, 2016; Luo, 2021), which, for reading convenience, will not be shown in the data here
- Puzzle
  - The causee is introduced at [Spec, VoiceP] (to be proved in Section 3), but fails all the agentive diagnostics converged in recent works, including (i) instrumental phrases, (ii) agent-oriented adverbs, (iii) agent-oriented comitatives, (iv) purpose clauses (2)
    - (2) a. \* *Nangy kə Mimi eng gu?bang tsao.*  
 Nangy give Mimi **use skateboard** run  
 Intended: ‘Nangy causes Mimi to use a skateboard to run.’  
 (instrument phrase)
    - b. \* *Nangy kə Mimi uyise?gai tsao.*  
 Nangy give Mimi **intentionally** run  
 Intended: ‘Nangy causes Mimi to intentionally run.’  
 (agent-oriented adverb)
    - c. \* *Nangy kə Mimi do Xingy gai siohu e tsao.*  
 Nangy give Mimi **LOC Xingy POSS help under** run  
 Intended: ‘Nangy causes Mimi to run with the help from Xingy.’  
 (agent-oriented comitative)

- d. \* *Nangy kə Mimi tsao kə səng.*  
 Nangy give Mimi run **to play**  
 Intended: 'Nangy causes Mimi to run for playing.'  
 (purpose clause)

– These diagnostics are valid tests for AGENT in Teochew

- \* All these four diagnostics are compatible with passive with an overt AGENT (3), but incompatible with unaccusative in Teochew (4)

(3) Passive:

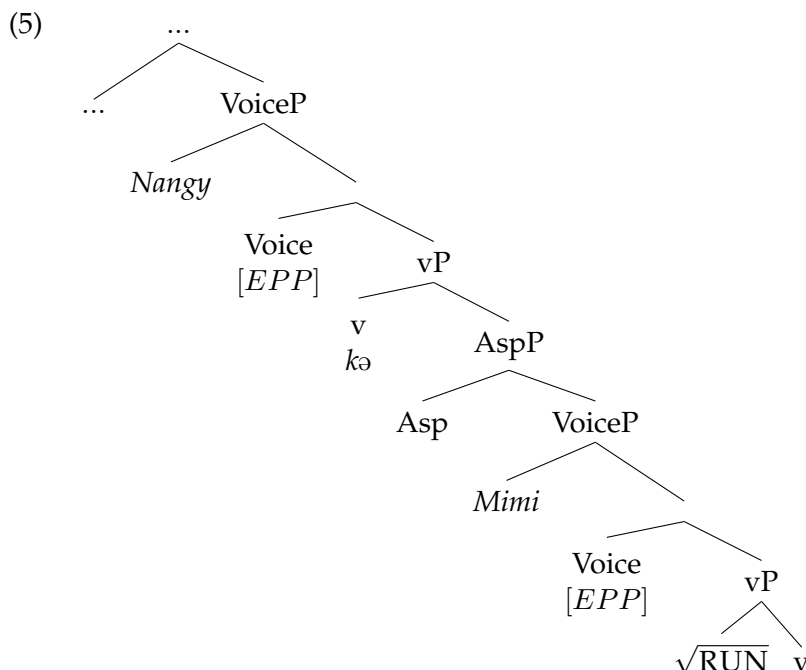
- a. *Hi goi bang kə ua eng t'its'ui tiaku.*  
 that CL room PASS 1sg **use hammer** demolish  
 'That room was demolished by me with a hammer.'  
 (instrument phrase)
- b. *Hi goi bang kə ua uyise?gai tiaku.*  
 that CL room PASS 1sg **intentionally** demolish  
 'That room was demolished by me intentionally.'  
 (agent-oriented adverb)
- c. *Hi goi bang kə ua do mets'a?gai siohu e tiaku.*  
 that CL room PASS 1sg **LOC burglar POSS help under** demolish  
 'That room was demolished by me with the help from burglar inside.'  
 (agent-oriented comitative)
- d. *Hi goi bang kə ua tiaku kə ki sin bang.*  
 that CL room PASS 1sg demolish **to build new room**  
 'That room was demolished by me to build a new room.'  
 (purpose clause)

(4) Unaccusative:

- a. \* *Hi goi bang kə yi-gagi eng t'its'ui dolo?ku.*  
 that CL room by 3sg-self **use hammer** fall-over  
 Intended: 'That room falls over by itself with a hammer.'  
 (instrument phrase)
- b. \* *Hi goi bang kə yi-gagi uyise? dolo?ku.*  
 that CL room by 3sg-self **intentionally** fall-over  
 Intended: 'That room falls over by itself intentionally.'  
 (agent-oriented adverb)
- c. \* *Hi goi bang kə yi-gagi do mets'a?gai siohu e dolo?ku.*  
 that CL room by 3sg-self **LOC burglar POSS help under**  
 fall-over  
 Intended: 'That room falls over by itself with the help from burglar inside.'  
 (agent-oriented comitative)
- d. \* *Hi goi bang kə yi-gagi dolo?ku kə ki sin bang.*  
 that CL room by 3sg-self fall-over **to build new room**  
 Intended: 'That room falls over by itself to build a new room.'  
 (unaccusative)

### 3 Syntactic argument structure

- The syntactic structure of (1) is as follows



- Evidence:

- Recursive vP

Like many others, I assume *v* introduces an event variable. The Teochew *kə*-causative are bi-eventive: it is compatible with two distinct manner adverbs, each modifying an event (6), following Horvath&Siloni (2010) and Rákosi (2011)

- (6) *Nangy meme kə (Mimi) manman tsao.*  
 Nangy **quickly** give Mimi **slowly** run  
 ‘Nangy quickly causes Mimi to slowly run.’

- No embedded CP

- \* *Diagnostic 1: Clitic Left Dislocation (CLLD)*

Object CLLD can be used to detect whether there is an available full CP, either in the matrix clause (7a) or in the embedded clause (7b) in Sinitic languages (Tsai, 2015)

- (7) a. *Tsu, yi hihua ta?*  
**book** 3sg like read  
 ‘Books, he/she/they likes to read.’  
 b. *Ua tia da tsu yi hihua ta?*  
 1sg hear COMP **book** 3sg like read  
 ‘I hear that books, he/she/they likes to read.’

(8) shows that the embedded objects in Teochew *kə*-causative cannot be CLLD-ed to the right of the causative verbs

- (8) \* *Nangy kə muegia Mimi tsia.*  
 Nangy give **stuff** Mimi eat  
 Intended: ‘Nangy causes, foodstuffs, Mimi to eat.’

\* *Diagnostic 2: Overt Complementizer*

Teochew has an overt embedded complementizer *da* 'say' (9).

- (9) a. *Yi dzinui da ngənganghaʔ ho hosəng.*  
 3sg think **COMP** linguistics very fun  
 'He/she/they thinks that linguistics is fun.'  
 b. *Yi haoki da migai ho hosəng.*  
 3sg wonder **COMP** what very fun  
 'What does he/she/they wonder is fun?'

(10) shows that the complementizer *da* 'say' is incompatible with the *kə*-causative.

- (10) \* *Nangy kə da Mimi tsao.*  
 Nangy give **COMP** Mimi run  
 Intended: 'Nangy causes Mimi/someone to run.'

– No embedded TP but embedding AspP

\* Following Lin (2006), I assume Sinitic languages do not have a TP layer

\* *Embedding AspP*

Teochew has a preverbal progressive aspectual morpheme *lo*, compatible with verbs of any transitivity (11).

- (11) a. *Yi lo yi.*  
 3sg **PROG** sleep  
 'He/she/they is sleeping.'  
(intransitive verb)  
 b. *Yi lo tsia tsa-bun.*  
 3sg **PROG** eat morning-rice  
 'He/she/they is eating breakfast.'  
(transitive verb)  
 c. *Yi lo sang kedzing loimue.*  
 3sg **PROG** send guest gift  
 'He/she/they is sending guests gifts.'  
(ditransitive verb)

(12) shows *lo* can modify the embedded caused event in Teochew *kə*-causative

- (12) *Nangy kə Mimi lo tsao.*  
 Nangy give Mimi **PROG** run  
 'Nangy causes Mimi to be running now.'

– Causee introduced as an argument, not an adjunct

\* *Diagnostic 1: passivizing the causee*

Like many other languages, in Teochew, an argument can be passivized while an adjunct cannot. The causee in Teochew *kə*-causative can be passivized (13)

- (13) ? *Mimi kə Nangy kə tsao.*  
**Mimi** PASS Nangy give run  
 'Mimi is caused by Nangy to run.'

The reason for ? will be explained in Section 4 when it comes to causal event structural analysis

- \* *Diagnostic 2: argument-targeting cleft construction*  
 Teochew has a ...*gai dai*... cleft construction, and only an argument (14a-14b), not an adjunct (14c), can be cleft by this construction

- (14) a. *DO tengkao toi tsiao gai dai Mimi.*  
 LOC window watch bird PTCP COP **Mimi**  
 'It is Mimi that watches birds at the window.'  
 b. *Mimi do tengkao toi gai dai tsiao.*  
 Mimi LOC window watch PTCP COP **bird**  
 'It is birds that Mimi watches at the window.'  
 c. \* *Mimi toi tsiao gai dai do tengkao.*  
 Mimi watch bird PTCP COP **LOC window**  
 Intended: 'It is at the window that Mimi watches birds.'

The causee in Teochew *kə*-causative can be clefted by this construction (15)

- (15) *Nangy kə tsao gai dai Mimi.*  
 Nangy give run PTCP COP **Mimi**  
 'It is Mimi that Nangy causes to run.'

- \* *Diagnostic 3: passivizing the embedded object*  
 Passivizing the embedded object in Teochew *kə*-causative is ungrammatical (16). Due to the locality concern, the causee is an argument

- (16) \* *Nangy kə muegia kə Mimi tsia.*  
 Nangy give **stuff** PASS Mimi eat  
 Intended: 'Nangy causes some foodstuff to be eaten by Mimi.'

- \* *Diagnostic 4: argument-targeting dui 'towards'-construction*  
 Teochew has a *dui* 'towards' construction, and only an argument (17a), not an adjunct (17b), can be raised by this construction

- (17) a. *Mimi dui muegia keng do suahua? e.*  
 Mimi towards **stuff** hide LOC couch under  
 'Mimi hides some stuff under the couch.'  
 b. \* *Mimi dui do suahua? e keng muegia.*  
 Mimi towards **LOC couch** **under** hide stuff.  
 Intended: 'Mimi hides some stuff under the couch.'

The causee in Teochew *kə*-causative can be raised to the left of the causative verb by this construction (18)

- (18) ? *Nangy dui Mimi kə tsao.*  
 Nangy towards **Mimi** give run  
 'Nany causes Mimi to run.'

The reason for ? will be explained in Section 4 when it comes to causal event structural analysis

– Causee is introduced by VoiceP

- \* *Evidence 1: the embedded predicate cannot be unaccusative*

- (19) \* *Nangy kə Mimi bualoku.*  
 Nangy give Mimi **fall.over**  
 Intended: 'Nangy causes Mimi to fall over.'

\* Evidence 2: the embedded predicate cannot be a psych verb

(20) \*Nangy kə Mimi **gia** Xingy.  
 Nangy give Mimi **fear** Xingy  
 Intended: 'Nangy causes Mimi to fear Xingy.'

\* Evidence 3: the causee can co-occur with a high applicative argument introduced by *ga?*

Like Taiwanese Southern Min (Lee, 2012), Teochew, also a variety of Southern Min, always introduce a high applicative argument by a function word *ga?*<sup>2</sup> (21)

(21) Yi **ga?** ua soi sakou.  
 3sg **BEN** 1sg wash clothes  
 'He washes clothes for me.'

The causee in Teochew, not introduced by *ga?* itself, can even co-occur with a high applicative argument introduced by *ga?*, suggesting it is not introduced by HApplP (22)

(22) Nangy kə Mimi **ga?** Xingy soi sakou.  
 Nangy give Mimi **BEN** Xingy wash clothes  
 'Nangy causes Mimi to wash clothes for Xingy.'

- Puzzle: the causee in Teochew *kə*-causative is introduced at [Spec, VoiceP] (5), BUT it fails all the agentive diagnostics in (2) (copied below)

- (23) a. \*Nangy kə Mimi **eng gu?bang** tsao.  
 Nangy give Mimi **use skateboard** run  
 Intended: 'Nangy causes Mimi to use a skateboard to run.'  
 (instrument phrase)
- b. \*Nangy kə Mimi **uyise?gai** tsao.  
 Nangy give Mimi **intentionally** run  
 Intended: 'Nangy causes Mimi to intentionally run.'  
 (agent-oriented adverb)
- c. \*Nangy kə Mimi **do Xingy gai siohu e** tsao.  
 Nangy give Mimi **LOC Xingy POSS help under** run  
 Intended: 'Nangy causes Mimi to run with the help from Xingy.'  
 (agent-oriented comitative)
- d. \*Nangy kə Mimi tsao kə **səng**.  
 Nangy give Mimi run **to play**  
 Intended: 'Nangy causes Mimi to run for playing.'  
 (purpose clause)

- I will argue that it is because the causee in Teochew *kə*-causative is NOT interpreted as AGENT simpliciter, but as **Prospective AGENT**. Before looking at how this interpretation is derived, Section 4 explores the causal event structural interpretation of this Teochew causative construction first

<sup>2</sup>In Taiwanese Southern Min, it is *ka*; see discussions in Teng (1982), Tsao&Lu (1990), Cheng&Tsao (1995), Lien (2002), Tsao (2005), and Lee (2012).

## 4 Causal event structural interpretation

- I argue that Teochew *kə* ‘give’-causative is a **probabilistic causative** where the actuality of the caused event is not entailed
  - Teochew *mue* ‘make’-causative (24), a **deterministic causative** entailing the actuality of the caused event, will be used for comparisons

(24) *Nangy mue Mimi tsao.*  
 Nangy **make** Mimi run  
 ‘Nangy causes Mimi to run.’

- Evidence

- *Diagnostic 1: negating the caused event*

Negating the caused event in the *mue*-causative (25a) is infelicitous, but it is ok in the *kə*-causative (25b)

- (25) a. *Nangy mue Mimi tsao, #dansi yi bo tsao.*  
 Nangy **make** Mimi run but 3sg NEG run  
 ‘Nangy causes Mimi to run, #but it does not run.’  
(*mue*-causative)
- b. *Nangy kə Mimi tsao, dansi yi bo tsao.*  
 Nangy **give** Mimi run but 3sg NEG run  
 ‘Nangy causes Mimi to run, but it does not run.’  
 (Lit. Nangy gives the running to Mimi, but it does not run.)  
(*kə*-causative)

- *Diagnostic 2: scope of negation*

The pre-verbal negative morpheme *bo* can have different scopes in the *mue*-causative, targeting either the causing event or the caused event (26a), but it can only target the causing event in the *kə*-causative, considering the caused event is not guaranteed to happen (26b)

- (26) a. *Nangy bo mue Mimi tsao.*  
 Nangy NEG **make** Mimi run  
 Meaning 1: ‘Nangy did not do the causing-Mimi-to-run thing.’  
 Meaning 2: ‘Nangy failed to cause Mimi to run.’  
(*mue*-causative)
- b. No context is provided<sup>3</sup>:  
*Nangy bo kə Mimi tsao.*  
 Nangy NEG **give** Mimi run  
 The only meaning: ‘Nangy did not do the causing-Mimi-to-run thing.’  
 (Lit. ‘Nangy did not give the running to Mimi.’)  
(*kə*-causative)

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<sup>3</sup>Only when the caused event is known not to happen, then it patterns the same as the *mue*-causative in this case.



– *Diagnostic 3: scope of the clause-final perfective marker o*

The clause-final perfective marker *o* can target both the causing event and the caused event in the *mue*-causative (27a), but it can only target the causing event in the *kə*-causative (27b)

- (27) a. *Nangy mue Mimi tsao o.*  
 Nangy **make** Mimi run PFV  
 Meaning 1: ‘Nangy HAS DONE the causing-Mimi-to-run thing and it run.’  
 Meaning 2: ‘Nangy caused that Mimi to run and it HAS RUN.’  
 (*mue*-causative)

- b. No context is provided<sup>4</sup>:  
*Nangy kə Mimi tsao o.*  
 Nangy **give** Mimi run PFV  
 The only meaning: ‘Nangy HAS DONE the causing-Mimi-to-run thing.’  
 (Lit. Nangy HAS GIVEN the running to Mimi.)  
 (*kə*-causative)

– *Diagnostic 4: scope of the gihu ‘almost’ modification*

The *almost* modification can have ambiguous readings, depending on either modifying the onset of the event or the final produced state by that event (McCawley 1971, Rapp&von Stechow 1999). It can modify both the causing event and the caused event in the *mue*-causative (28a), but it can only modify the former in the *kə*-causative (28b)

- (28) a. *Nangy gihu mue Mimi tsao.*  
 Nangy almost **make** Mimi run  
 Meaning 1: ‘Nangy almost does the causing-Mimi-to-run thing.’  
 Meaning 2: ‘Nangy almost succeeds to cause Mimi to run.’  
 (*mue*-causative)

- b. No context is provided<sup>5</sup>:  
*Nangy gihu kə Mimi tsao.*  
 Nangy almost **give** Mimi run  
 The only meaning: ‘Nangy almost does the causing-Mimi-to-run thing.’  
 (Lit. ‘Nangy almost gives the running to Mimi.’)  
 (*kə*-causative)

– *Diagnostic 5: scope of the you ‘again’ modification*

The modifier *you* ‘again’, following the same spirit of the *almost* modification on diagnosing sub-event of an event chain, serves as the fifth diagnostic (McCawley 1968, Dowty 1979, von Stechow 1995, Pylkkänen 2008)

In the *mue*-causative, both ‘repetitive’ and ‘restitutive’ readings are available (29).

- (29) *Nangy you mue Mimi tsao.*  
 Nangy again **make** Mimi run  
 Meaning 1 (repetitive): ‘Nangy does the causing-Mimi-to-run thing again and it runs again.’

<sup>4</sup>Only when the caused event is known to happen, then it patterns the same as the *mue*-causative in this case.

<sup>5</sup>Only when the caused event is known to fail to happen but it is close, then it patterns the same as the *mue*-causative in this case.

Meaning 2 (restitutive): ‘Mimi was caused to run by others before and Nangy causes it to run again.’

(*mue*-causative)

In the *kə*-causative, while there is no context provided, it is hard to get either ‘repetitive’ or ‘restitutive’ reading. The only reading is that the causing event creates causing circumstances for the caused event to happen again (30).

(30) No context is provided<sup>6</sup>:

*Nangy you kə Mimi tsao.*  
Nangy again **give** Mimi run

The only meaning: ‘Nangy does the causing-Mimi-to-run thing again.’  
(Lit. ‘Nangy gives the running to Mimi again.’)

(*kə*-causative)

– *Diagnostic 6: passivizing the causee*

As is shown in (13) in Section 3 (copied as (31a) below), the acceptability of passivizing the causee in the *kə*-causative is relatively lower; but it is grammatical in the case of the *mue*-causative (31b)

(31) a. ? *Mimi kə Nangy kə tsao.*  
Mimi PASS Nangy **give** run  
‘Mimi is caused by Nangy to run.’

(*kə*-causative)

b. *Mimi kə Nangy mue tsao.*  
Mimi PASS Nangy **make** run  
‘Mimi is caused by Nangy to run.’

(*mue*-causative)

– *Diagnostic 7: the argument-targeting dui-construction*

As is shown in (18) in Section 3 (copied as (32a) below), the acceptability of raising the causee by the argument-targeting *dui*-construction is lower; but it is grammatical in the case of the *mue*-causative (32b)

(32) a. ? *Nangy dui Mimi kə tsao.*  
Nangy towards Mimi **give** run  
‘Nany causes Mimi to run.’

(*kə*-causative)

b. *Nangy dui Mimi mue tsao.*  
Nangy towards **Mimi make** run  
‘Nany causes Mimi to run.’

(*mue*-causative)

– *Diagnostic 8: the resultative SV<sub>1</sub>V<sub>2</sub>/A<sub>2</sub>O construction*

In Sinitic languages, the resultative *Subject-Verb<sub>1</sub>-Verb<sub>2</sub>/Adjective<sub>2</sub>-Object* construction is very productive (Huang, Li&Li 2009). In this construction, *Verb<sub>1</sub>*, transitive or intransitive, indicates ‘means’ or the causing event, while *Verb<sub>2</sub>/Adjective<sub>2</sub>*, intransitive only, indicates the result event (33).

<sup>6</sup>But when a context where the caused is known to happen is provided, like the *mue*-causative, both ‘repetitive’ and ‘restitutive’ readings are available

- (33) a. *Mimi tsao he? o.*  
 Mimi run tired PFV  
 ‘Mimi run and has become tired.’  
 b. *Mimi nia? ts’ui muegia o.*  
 Mimi pound broken stuff PFV  
 ‘Mimi pounds the stuff broken.’

It is possible to paraphrase the *mue*-causative into this construction (34a), but impossible for the *kə*-causative (34b)

- (34) a. *Nangy mue tsao Mimi.*  
 Nangy **make** run Mimi  
 ‘Nangy causes Mimi to run.’  
(*mue*-causative)  
 b. \**Nangy kə tsao Mimi.*  
 Nangy **give** run Mimi  
 Intended: ‘Nangy causes that Mimi to run.’  
(*kə*-causative)

– *Diagnostic 9: the resultative V-gao-Result construction*

In Teochew, there is another resultative construction – the resultative *V-gao* (lit. ‘arrive/reach’)-*Result* construction. The *V* denoting the causing event can be either intransitive, transitive or ditransitive (35).

- (35) a. *Mimi tsao gao ho he?.*  
 Mimi run arrive very tired  
 ‘Mimi run and has become tired.’  
 b. *Mimi tsia gao ho ba.*  
 Mimi eat arrive very full  
 ‘Mimi ate a lot and has become full.’  
 c. *Mimi sang gao ho he?.*  
 Mimi send arrive very tired  
 ‘Mimi sent some stuff to someone/somewhere and has become tired.’

The *mue*-causative can be paraphrased into this resultative structure (36a), but the *kə*-causative cannot (36b)

- (36) a. *Nangy mue gao Mimi tsao.*  
 Nangy **make** arrive Mimi run  
 ‘Nangy causes Mimi to run.’  
(*mue*-causative)  
 b. \**Nangy kə gao Mimi tsao.*  
 Nangy **give** arrive Mimi run  
 Intended: ‘Nangy causes Mimi to run.’  
(*kə*-causative)

• Summary

- This section uses nine diagnostics (37) to show the causal event structural differences between two periphrastic causatives in terms of the actuality entailment of the caused event

- (37) *Diagnostic 1*: negating the caused event  
*Diagnostic 2*: the scope of negation  
*Diagnostic 3*: the scope of the clause-final perfective marker *o*  
*Diagnostic 4*: the scope of the *gihu* ‘almost’ modification  
*Diagnostic 5*: the scope of the *you* ‘again’ modification  
*Diagnostic 6*: passivizing the causee  
*Diagnostic 7*: the argument-targeting *dui*-construction  
*Diagnostic 8*: the resultative SV<sub>1</sub>V<sub>2</sub>/A<sub>2</sub>O construction  
*Diagnostic 9*: the resultative V-*gao*-Result construction

– Together, they prove that the Teochew *kə*-causative is a **probabilistic causative** which does not entail the actuality of the caused event

• Semantic analysis:

– Previous analysis of actuality entailment – **lexically-specified modality**

- \* Case 1: Davis et al. (2009) shows that in St’át’imcets, the so-called ‘out-of-control’ *ka-...-a* circumfix makes the actuality of the event indicated by the predicate surrounded by it is cancelable (38)

- (38) *qwenúxw=kan i=nátcw=as,*  
sick=1SG.SUBJ when.PAST=DAY=3CONJ  
*ka-tsunam’-cal=lhkán-a=ka,* *t’u7 cw7áoy=t’u7.*  
**CIRC-teach-ACT=1SG.SUBJ-CIRC=IRR** but **NEG=ADD**  
‘I was sick yesterday. I could have taught, but I didn’t.’

Adopting Kratzer’s (1977, 1981&1999) formal framework on modality, they argue that this circumfix lexically encoded a modality (39)

- (39) a.  $[[ka-a]]^c$  is only defined if *c* provides a circumstantial modal base *B* and a stereotypical ordering source.  
If defined,  $[[ka-a]]^c = \lambda P_{\langle e, \langle s, t \rangle \rangle} . \lambda x . \lambda w . \forall w' [w' \in f_x(B(w)) \rightarrow P(x)(w')]$   
(Personal interpretation)
- b.  $[[ka-a]]^c$  is only defined if *c* provides a circumstantial modal base *B* and a stereotypical ordering source.  
If defined,  $[[ka-a]]^c = \lambda P_{\langle s, t \rangle} . \lambda w . \forall w' [w' \in f(B(w)) \rightarrow P(x)(w')]$   
(Impersonal reading)

- \* Case 2: Rivero et al. (2010) shows that the involuntary-state construction in Polish (40) shares some similarities with the *ka-...-a* circumfix in St’át’imcets in terms of the ‘out of control (non-actuality entailment)’ reading

- (40) *Marta chciała zjeść ciastko, a jej siz(e) kichbz(e)ł.*  
Marta wanted eat cookies but she.DAT REFL sneezed.NEU  
‘Marta wanted to eat a cookie; but she could not help sneezing.’

Following Kratzer and Davis et al, they analyze this construction as carrying a silent circumstantial modal (CM) (41)

- (41)  $[[CM]]^{w, f-circumstantial} (P_{\langle e, \langle 1, \langle s, t \rangle \rangle \rangle} (Q_{\langle e, \langle 1, \langle s, t \rangle \rangle \rangle} (x_e)(w)) = 1$   
iff  $\{ w' : w' \in \cap f_{circ}(w) \ \& \ P(x)(e)(w') = 1 \} \subseteq \{ w' : Q(x)(e)(w') = 1 \}$   
where *e* is a salient presupposed eventuality and  $f_{circ}$  is a salient circumstantial modal base

- \* Case 3: Martin&Schäfer (2017) shows that for defeasible causative verbs like ‘offer’ in French (42a) and ‘flatter’ in German (42b), though they are by default used to denote an act performed with the intention to trigger a certain change of state, this change of state does not have to occur for the sentence to be true

- (42) a. *Pierre m’a offert une nouvelle vie, mais je n’en voulais pas.*  
 Pierre me.has offered a new life but I NEG.of.it wanted NEG  
 ‘Pierre offered me a new life, but I didn’t want it.’
- b. *Hans schmeichelte Maria, aber sie fühlte sich überhaupt nicht geschmeichelt.*  
 Hans flattered Marie but she felt REFL absolutely NEG  
 flattered  
 ‘John flattered Mary, but she felt absolutely not flattered.’

They also adopts the analysis that the causative structure encodes a sublexical modal base, containing what they call ‘causal successful’ worlds (43)

- (43) [ VP offrir y a z ]  
 $=\lambda y\lambda z\lambda e[\text{offer}(e)\wedge\text{theme}(e, y)\wedge\text{recipient}(e, z)\wedge$   
 $\Box_{\text{causal\_success}}\exists e'(\text{cause}(e, e')\wedge\text{have}(e')\wedge\text{possessee}(e', y)\wedge\text{possessor}(e', y))]$   
 $=_{\text{def}}\lambda y\lambda z\lambda e[\text{OFFER}(e, z, y)]$

– Return back to Teochew  $k\text{ə}$ -causative

- \* Following the same spirit of the lexically-specified modality analysis when it comes to actuality entailment, I argue that **the causative verb  $k\text{ə}$  also lexically encodes a modality**
- \* When it comes to the flavor of this modality, I adopts Portner’s (2009) proposal of Dynamic Modal, which has a circumstantial modal base
  - This Dynamic Modal group has two primary subgroups – volitional (ability, opportunity and dispositional) and quantificational (existential and universal)
  - I argue that **an existential opportunity modality is encoded in the lexical entry of  $k\text{ə}$  with a circumstantial modal base B and a stereotypical ordering source**
- \* The lexical entry of the causative verb  $k\text{ə}$  is given as follows in (44) – the stereotypical ordering source is left out of the truth condition for simplicity

- (44)  $[[k\text{ə}]] = \lambda P_{\langle v, st \rangle} . \lambda e_2 . \lambda w . \exists e_1 . \exists w' [w' \in B(w) \wedge \text{Result}(e_2)(w) \wedge P(e_1)(w')]$

where  $e_1$  represents the caused event and  $e_2$  represents the causing event

- \* When the interpretation of the causal event structural is compositionally computed, we will have a **probabilistic causative** at the end, given the existential opportunity modality encoded in the lexical entry of the causative verb  $k\text{ə}$

## 5 Contextual interpretation of causee

- So far we have known the syntactic argument structure (i.e., (5)) and the causal event structure interpretation (i.e., **probabilistic causative**) of Teochew  $k\text{ə}$ -causative
- It is ready to solve the puzzling ‘nonagentive’ interpretation (2) of the causee introduced by VoiceP

- Two positions of argument thematic interpretation in the literature
  - Since Jackendoff (1972), Grimshaw (1979, 1981), Pesetsky (1982) and Chomsky (1986), it is strongly believed in the field that the relationship between the predicate meaning and the argument realization is predictable
    - \* One of the most famous alignment hypotheses is the ‘Universal Alignment Hypothesis (UAH)’ (Perlmutter, 1983; Perlmutter&Postal, 1984)
  - The question is whether it is empirically true.
  - One important theoretical distinction regarding the argument interpretation is <sup>7</sup>
    - \* Listing:
 

It is **listed with individual verbs** (e.g. ‘co-indexing subcategorization frame with  $\theta$ -grid’; Chomsky, 1981; Stowell, 1982)

or **listed with specific syntactic positions** (e.g. ‘thematic hierarchy and obliqueness hierarchy’; Jackendoff, 1972; Sag, 1985; Larson, 1988; ‘Universal Theta Assignment Hypothesis (UTAH)’; Baker, 1988)
    - \* Contextual:
 

it **contextualized by the syntactic and semantic environments surrounding the verb** (Borer 2005; Ramchand 2008; Schäfer 2008; Alexiadou et al. 2015; Wood&Marantz 2017; Nash, 2021; Biggs&Embick 2022; Marantz 2022, a.o.)
  - The **listing** approach CANNOT solve the puzzling ‘nonagentive’ interpretation of the causee in Teochew *kə*-causative
    - \* If the causee interpretation is listed with individual verbs like the embedded activity predicate ‘run’ in (1), it should be interpreted as AGENT and passes the agentive diagnostics
 

→ *contradict the ungrammatical data in (2)*<sup>8</sup>
    - \* If the causee interpretation is listed with specific syntactic positions, VoiceP in the case of (1), it should be interpreted as AGENT following Kratzer (1996) and many others, and passes the agentive diagnostics
 

→ *contradict the ungrammatical data in (2)*<sup>9</sup>
- **Contextual** external argument thematic interpretation<sup>10</sup>
  - *Theoretical support*: the Fregean principle of compositionality (45)
 

(45) The principle of compositionality (the Fregean Principle):  
The meaning of a complex expression is determined by the meanings of its parts and the way they are syntactically combined.

<sup>7</sup>See connected distinctions, ‘lexicalist vs. constructivist’ in Marantz (2013) and, ‘projectionist vs. separationist’ in Williams (2015).

<sup>8</sup>If the causee interpretation is listed with individual verbs like the causative verb *kə* in (1), it should be interpreted as CAUSEE (see Akkuş (2021, 2022)). This seems to be one way out. But my dissertation actually works on four kinds of causees all interpreted not as AGENT simpliciter, making CAUSEE too broad a label for the causee interpretation.

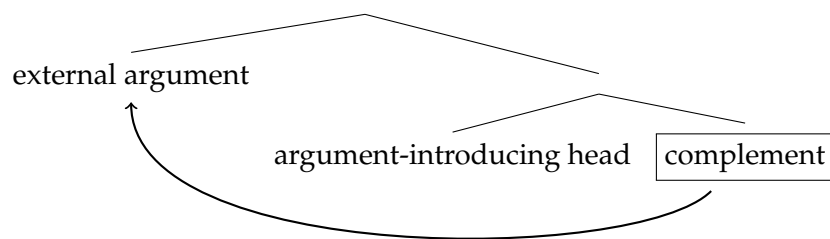
<sup>9</sup>If the causee interpretation is listed with specific syntactic positions like Subject, in the spirit of the ‘thematic/obliqueness hierarchy’ approach, it should be interpreted as AGENT and passes the agentive diagnostics, again contradicting the data in (2)

<sup>10</sup>For contextual thematic interpretation of other arguments, see Dowty (1991), Beavers (2006a, 2006b), Krifa (1989, 1992, 1998), Tenny (1987, 1991, 1994), Borer (1994, 2003, 2005) and Ramchand (2008).

– Previous studies on contextual interpretation of external argument

- \* Among different types of arguments in the verbal domain, external arguments like AGENT external argument as well as Causer, Applied, Holder, and Figure external arguments have been given a served syntactic and thematic status throughout history<sup>11</sup>
- \* Also in Chomsky (2000, 2001), the functional head introducing external argument (v in Chomsky’s system) is regarded as one of the core functional categories to define the cyclic domain, i.e., phase
- \* Empirical evidence supporting this served status comes from the observation that the interpretation of an external argument is **contextualized** by the event structural interpretation of the syntactic complement of the function heads introducing it (46).

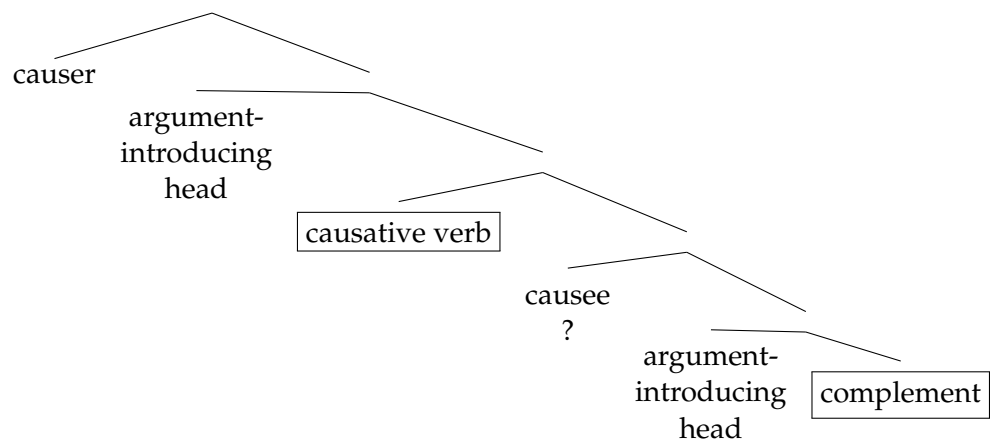
(46)



– A research gap:

- \* There is few discussions on the contextual conditions of causee, which is also one type of external arguments (47).

(47)



- \* Cross-linguistical puzzling ‘nonagentive/reduced agency’ causee interpretation
  - Causee in **Acehnese** *bak* causative (Legate, 2014)
  - Causee in **Georgian** *a...in* causative (Nash, 2017)
  - Causee in **Turkish** *-Dir* causative (Nie, 2020, 2022; an updated analysis of Key (2013))

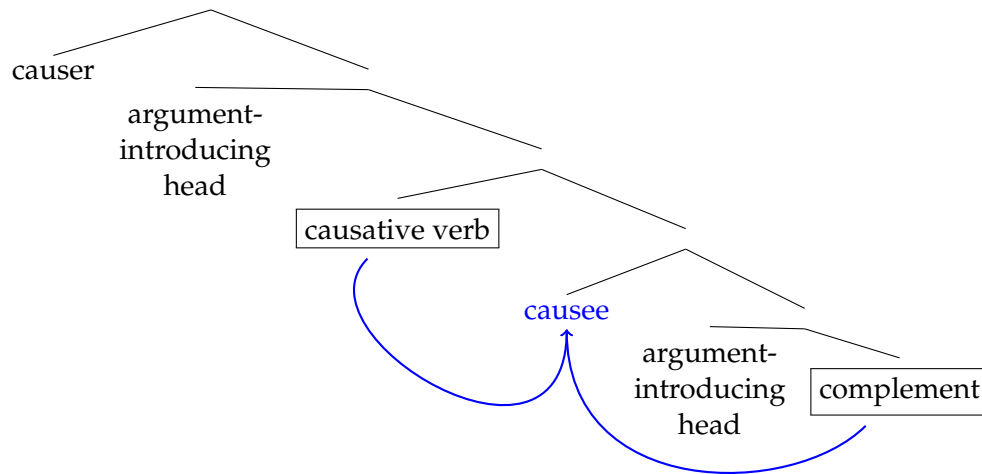
<sup>11</sup>See Williams (1981), Marantz (1984), Rappaport&Levin (1986), Grimshaw (1990), Kratzer (1996), Pylkkänen (2002/2008), Legate (2014), Alexiadou et al. (2015), Wood (2015), Wood&Marantz (2017), Nash (2021), Marantz (2022), Biggs&Embick (2022) among others for detailed discussions

- Unmarked and instrumental causee in **isiXhosa** causative (Myler&Mali, 2021)
- Implicit causee in **Icelandic** ‘let’-causative (Sigurðsson&Wood, 2022)
- Causee in **Sason Arabic**’s geminative causative and the Give causative (Akkuş, 2021, 2022)
- **All these suggest the causee interpretation puzzle in Teochew is not a special case**

\* Currently there is few detailed analysis of this puzzling causee interpretation

- I argue that at least in the case of Teochew *kə*-causative, the ‘nonagentive’ causee interpretation is **contextualized by the syntactically-oriented causal event structural interpretation, which is determined by the modal properties of the syntactically-higher causative verb** (48)

(48)



- The causee in Teochew *kə*-causative will be interpreted as **Prospective AGENT**, given that the causative construction is a ‘probabilistic’ one in terms of causal event structure and the embedded predicate is an activity verb
- The notion of **Prospectiveness** (skip if no time)
  - \* Gropen et al. (1989), Beavers (2010) and BeaversKoontz-Garboden (2020) discuss this notion in terms of ‘possession’ in the context of double-object and dative construction, connected to the classic discussions on the ‘HAVE-GOAL’ distinction (Richards 2001, Harley 2002, Krifka 2004 a.o.)
  - \* What is interesting about the Teochew probabilistic *kə*-causatives is that the causative verb, *kə* ‘give’, can be used as a ditransitive verb in the double object and dative constructions in Teochew as well (49).

- (49) a. *Nangy kə Mimi loimue.*  
 Nangy give Mimi gift  
 ‘Nangy gives Mimi some gift.’
- b. *Nangy kə loimue ku Mimi.*  
 Nangy give gift to Mimi  
 ‘Nangy gives some gift to Mimi.’



However, unlike English *give*, the Teochew *kə* ‘give’ behaves like English *send* in that no matter it shows up in the double object construction or the dative construction, the transfer relationship is always ‘GOAL’ or ‘prospective possession’ (50).

- (50) a. *Nangy kə Mimi loimue, dansi m-tsai tsoni yi bo siudio?*  
 Nangy give Mimi gift but NEG-know how 3sg NEG receive  
 ‘Nangy gives Mimi some gift, but due to some unknown reason, Mimi does not receive it.’
- b. *Nangy kə loimue ku Mimi, dansi m-tsai tsoni yi bo siudio?*  
 Nangy give gift to Mimi but NEG-know how 3sg NEG receive  
 ‘Nangy gives some gift to Mimi, but due to some unknown reason, Mimi does not receive it.’

\* This further prove that the **prospective/probabilistic** reading is encoded in the lexical semantics of *kə*

- This contextualization mechanism predicts if the causative verb *kə* in (2) is changed to *mue* (51), our deterministic causative verb, or if the causer *Nangy* and the causative verb *kə* in (2) are removed (52), the causee *Mimi* will pass all the agentive diagnostics

– This prediction is born out

- (51) a. *Nangy mue Mimi eng gu?bang tsao.*  
 Nangy make Mimi **use skateboard** run  
 ‘Nangy causes Mimi to use a skateboard to run.’  
 (instrument phrase)
- b. *Nangy mue Mimi uyise?gai tsao.*  
 Nangy make Mimi **intentionally** run  
 ‘Nangy causes Mimi to intentionally run.’  
 (agent-oriented adverb)
- c. *Nangy mue Mimi do Xingy gai siohu e tsao.*  
 Nangy make Mimi **LOC Xingy POSS help under** run  
 ‘Nangy causes Mimi to run with the help from Xingy.’  
 (agent-oriented comitative)
- d. *Nangy mue Mimi tsao kə səng.*  
 Nangy make Mimi run **to play**  
 ‘Nangy causes Mimi to run for playing.’  
 (purpose clause)
- (52) a. *Mimi eng gu?bang tsao.*  
 Mimi **use skateboard** run  
 ‘Mimi uses a skateboard to run.’  
 (instrument phrase)
- b. *Mimi uyise?gai tsao.*  
 Mimi **intentionally** run  
 ‘Mimi intentionally runs.’  
 (agent-oriented adverb)
- c. *Mimi do Xingy gai siohu e tsao.*  
 Mimi **LOC Xingy POSS help under** run  
 ‘Mimi runs with the help from Xingy.’  
 (agent-oriented comitative)

- d. *Mimi tsao kə səng.*  
 Mimi run to play  
 ‘Mimi runs for playing.’

(purpose clause)

## 6 Summary and implications

- This study shows that in Teochew *kə*-caustative, the ‘nonagentive’ interpretation of the causee is **contextualized by the syntactically-oriented causal event structural interpretation determined by the modal properties of the syntactically-higher causative verb**
- I presents a syntactic and semantic implementation in which an intermediate external argument, i.e., causee which undergoes the causing event and *potentially* initiating the caused event, is not interpreted as Agent simpliciter but a **Prospective AGENT**
- Implication for argument thematic interpretation
  - It is **not** listed with individual verbs
  - It is **not** listed with specific syntactic positions
  - It is **contextualized** by the syntactically-oriented event structural interpretation
  - Discrete and unanalyzed thematic roles like AGENT are **not** sophisticated enough to capture the complex contextual argument interpretation (see the widely-cited Dowty (1991))
- Implication for contextualization conditions of external argument
  - While the interpretation of some external arguments is **contextualized** by the event structural interpretation of the syntactic complement of the function heads introducing it (46)
  - Causee, as one type of external arguments, can have **more complex** contextualization conditions as is shown in (48)
- For future studies (currently working on)
  - Further specify the technical details of the contextualization conditions of causee interpretation based on analyses on the ontology and plural instantiations of causal relation
    - \* Pragmatics and philosophy will also play an important role in the analyses
  - The nature of agentive diagnostics, AGENT and CAUSEE
  - Implications for argument introduction based on analyses of argument interpretation
- Thank you for listening!

## Appendix I: Implicit causee

- In addition to the puzzling ‘nonagentive’ causee interpretation discussed above, what makes the picture even more complicated is the optionality of causee in the *kə* ‘give’-causative (53a), contrasting to that in the *mue* ‘make’-causative (53b). When it is absent, it receives an unspecified reading

- (53) a. *Nangy kə tsao.*  
 Nangy *kə* run  
 ‘Nangy causes someone to run.’  
 (Lit. ‘Nangy gives the running event to someone.’)  
(*kə*-causative)
- b. \**Nangy mue tsao.*  
 Nangy *make* run  
 Intended: ‘Nangy causes someone to run.’  
(*mue*-causative)

- The syntactic nature of the implicit causee

– It is not a case of argument drop

- \* Unlike argument drop in other Sinitic languages (Li&Thompson, 1981; Huang, 1982; Huang, Li&Li, 2009) (54), the implicit causee in Teochew *kə*-causative does not require contextual support (55)

- (54) a. A discourse context where the addressee is ‘you’ is provided:

(*Lu*) *tsia tsa-bun bue?*

2sg eat morning-rice NEG

‘Have you eaten breakfast?’

- b. No discourse context is provided:

\* *Tsia tsa-bun bue?*

eat morning-rice NEG

Intended: ‘Have you eaten breakfast?’

- (55) No discourse context with the causee identity of is provided:

*Nangy kə tsao.*

Nangy give run

‘Nangy causes someone to run.’

– It is syntactically-project

- \* The implicit causee in the *kə* ‘give’-causative is syntactically projected, allowing it to license (i) reflexive anaphors, (ii) reciprocals and (iii) depictives (56)

- (56) The *kə*-causative:

a. *Nangy<sub>j</sub> kə yi-gagi<sub>i</sub>/yin-gagi<sub>i</sub> tsao.*

Nangy give 3sg-self/3pl-self run

‘Nangy causes someone to run himself/herself/themselves.’

(reflexive anaphor)

b. *Nangy<sub>j</sub> kə bits’ə<sub>i</sub> siogi.*

Nangy give each.other meet

‘Nangy causes someones to meet each other.’

(reciprocal)

c. *Nangy<sub>j</sub> kə tsuitsui-gai<sub>i</sub> tsao.*  
 Nangy give **drunk-MOD** run  
 ‘Nangy causes someone drunk to run.’

(depictive)

– It is an argument not adjunct

\* Like the explicit counterpart, the embedded object cannot be passivized due to the locality concern (57)

(57) \**Nangy kə muegia kə tsia.*  
 Nangy give **stuff** PASS eat

Intended: ‘Nangy causes some foodstuff to be eaten by someone.’

– It is introduced by VoiceP

\* Like the explicit counterpart, the implicit causee is introduced by VoiceP

· Evidence 1: the embedded predicate cannot be unaccusative

(58) \**Nangy kə bualoku.*  
 Nangy give **fall.over**

Intended: ‘Nangy causes someone to fall over.’

· Evidence 2: the embedded predicate cannot be a psych verb

(59) \**Nangy kə gia Xingy.*  
 Nangy give **fear** Xingy

Intended: ‘Nangy causes someone to fear Xingy.’

· Evidence 3: the causee can co-occur with a high applicative argument introduced by *gaʔ*

(60) *Nangy kə gaʔ Xingy soi sakou.*  
 Nangy give **BEN** Xingy wash clothes

‘Nangy causes someone to wash clothes for Xingy.’

– Why a syntactically-projected argument can be null is still under explorations

• The causal event structural interpretation

– The Teochew *kə*-causative is still interpreted as a **probabilistic causative**, as diagnosed by the nine diagnostics in (37) (example omitted here)

– **BUT judgments of native speakers show that the probabilistic meaning is stronger in the case of implicit causee compared to that of explicit causee**

\* In those diagnostics making use of scope ambiguity, in the case of explicit causee, when the caused event is known to (almost/not) happen, the probabilistic *kə*-causative behave the same as the deterministic *mue*-causative

\* BUT in the case of the implicit causee, additional context, usually the identity of causee, is required to make the probabilistic *kə*-causative behave the same as the deterministic one

• The thematic interpretation of the implicit causee

– The implicit causee, like the explicit one, fail all the agentive diagnostics (61)

(61) a. \**Nangy kə eng guʔbang tsao.*  
 Nangy give **use skateboard** run

Intended: ‘Nangy causes someone to use a skateboard to run.’

(instrument phrase)

- b. \* *Nangy kə uyiseʔgai tsao.*  
 Nangy give **intentionally** run  
 Intended: 'Nangy causes someone to intentionally run.'  
 (agent-oriented adverb)
- c. \* *Nangy kə do Xingy gai siohu e tsao.*  
 Nangy give **LOC Xingy POSS help under** run  
 Intended: 'Nangy causes someone to run with the help from Xingy.'  
 (agent-oriented comitative)
- d. \* *Nangy kə tsao kə səng.*  
 Nangy give run **to play**  
 Intended: 'Nangy causes someone to run for playing.'  
 (purpose clause)

– In the case of explicit causee, when the caused event is known to happen, the acceptability of the diagnostics of instrument phrase (62a) and agent-oriented comitative (62c) will increase a little bit. However, in the case of implicit causee, it always fails the agentive diagnostics, no matter whether the caused event is known to happen or not

(62) Context: It is known that Mimi finally run.

- a. ?? *Nangy kə Mimi eng guʔbang tsao.*  
 Nangy give Mimi **use skateboard** run  
 Intended: 'Nangy causes Mimi to use a skateboard to run.'  
 (instrument phrase)
- b. \* *Nangy kə Mimi uyiseʔgai tsao.*  
 Nangy give Mimi **intentionally** run  
 Intended: 'Nangy causes Mimi to intentionally run.'  
 (agent-oriented adverb)
- c. ?? *Nangy kə Mimi do Xingy gai siohu e tsao.*  
 Nangy give Mimi **LOC Xingy POSS help under** run  
 Intended: 'Nangy causes Mimi to run with the help from Xingy.'  
 (agent-oriented comitative)
- d. \* *Nangy kə Mimi tsao kə səng.*  
 Nangy give Mimi run **to play**  
 Intended: 'Nangy causes Mimi to run for playing.'  
 (purpose clause)

– Therefore, the implicit causee is interpreted as **More Prospective AGENT**

– The contrast between explicit causee and implicit one in terms of the level of 'prospectiveness' when it comes to agency interpretation can be explained by studies on **Responsible Party**, helping identify some degree of the responsibility of the event (63)<sup>12</sup>.

(63) *A Responsible Party* (RP) is an individual (fact, property) that is explanatorily responsible for bringing about a situation  
 (Biggs&Embick 2022)

<sup>12</sup>See discussions on RP in rational clause control in Farkas (1988), Landau (2000, 2013&2017) and Green (2018), discussions on RP in typical active transitive in Williams (2015) and discussions on RP in English *be/get*-passive in Biggs&Embick (2022)

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