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Interpreting causee in a 'permissive' causative: A case study on Teochew

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Abstract. The verbal domain has been long argued to be a strong phase, of which the origin can be traced back to the discussion on theta role assignment. This study contributes to the understudied LF phasehood by exploring the argument thematic interpretation in the verbal domain. I argue that in Teochew permissive *bun*-causative, the interpretation of causee as an understudied external argument is not listed as syntactic primitives, but rather as post-syntactic derivatives derived from a syntactically-oriented causal event structure. This event structure is first affected by the eventuality of the embedded predicate and then influenced by two modalities sublexically encoded in the embedding causative verb, namely a volitional modality in the at-issue meaning and a deontic modality in the presupposition. Such a two-step contextualization mechanism constrains the final interpretation of causee, and sheds light on the discussion on the domain sensitivity at LF.

Keywords. causee interpretation; permissive causatives; LF phasehood; argument structure; modality

1. Introduction. Under the framework of Minimalist Program (Chomsky 1995, 2000, 2001) paired with Distributed Morphology (Halle & Marantz 1993, 1994), it is standardly assumed that in the Y-model of Grammar (1), 'Spell-Out' is sensitive to phasehood (Chomsky 2000, 2001). However, compared to the widely-studied phasehood on the PF side, there are few discussions on the LF side. This study aims to fill this research gap by exploring the verbal domain.

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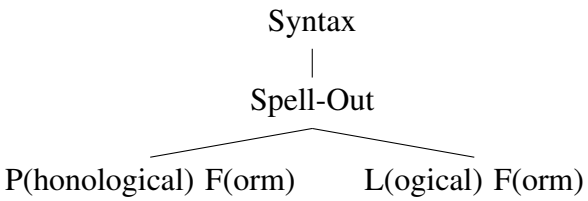

The verbal domain (VoiceP, *v*P or VP, depending on what type of analysis is adopted) is always considered a strong phase, together with CP and DP, in the literature. The origin can be traced back to Chomsky (2000), where the major argument comes from theta-role assignment, i.e., argument interpretation. Relevantly, the empirical domain of this study is the interpretation of the intermediate external argument, i.e., the causee, in the permissive causative in Teochew (Southern Min, Sinitic) (2).

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(2) Nangy bun Mimi tsao.
Nangy separate Mimi run
'Nangy lets Mimi run.'

Despite the fact that the embedded predicate is agentive, its subject, i.e., the causee, is incompatible with many agentive modifications, including rationale clauses (3a), agent-oriented adverbs (3b), instrument phrases (3c) and agent-oriented comitatives (3d). Additionally, the causee is also interpreted as someone of a lower social status than the causee (diagnostics in Section 3).

(3) a. *Nangy bun Mimi tsao kə səng.
Nangy separate Mimi run to play
Intended: 'Nangy lets [Mimi run for playing].'

b. *Nangy bun Mimi uyise?gai tsao.
Nangy separate Mimi intentionally run
Intended: 'Nangy lets [Mimi intentionally run].'

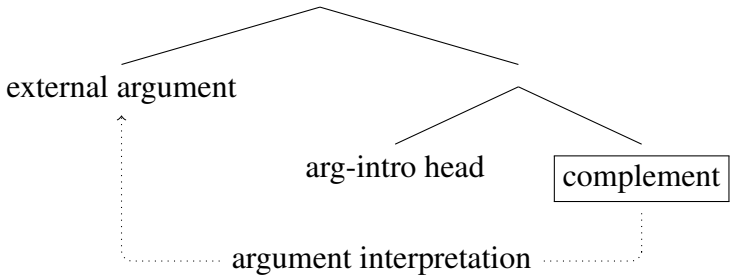
c. *Nangy bun Mimi eng gu?bang tsao.
Nangy separate Mimi use skateboard run
Intended: 'Nangy lets [Mimi use a skateboard to run].'

d. *Nangy bun Mimi do Xingy gai puebang e tsao.
Nangy separate Mimi at Xingy POSS accompany run
Intended: 'Nangy lets [Mimi run with the accompany of Xingy].'

A *listing* approach listing argument thematic interpretation with individual verbs, i.e., θ-grid, definitely cannot account for these patterns of causee, given the embedded predicate is an activity verb. One common way to solve this issue is to argue that the causee is introduced at or adjoined to ApplP (Ippolito 2000; Legate 2014; Nash 2020), rather than the AGENT-pairing VoiceP (e.g., Kratzer 1996; Pylkkanen 2008). However, in Section 2, I will argue that the causee is still connected to VoiceP, suggesting such a *listing* approach listing argument thematic interpretation with specific syntactic positions cannot work.

The *contextual* approach, as an alternative, treats argument thematic interpretation as post-syntactic derivatives derived from syntactically-oriented event structure interpretation (e.g., Alexiadou et al. 2015; Wood 2015; Myler 2016; Wood & Marantz 2017) rather than syntactic primitives (cf. the listing approach). Most of the previous studies along this line argue for a *complement-oriented* contextual approach. More specifically, the eventuality of the syntactic complement of the external argument connecting head will feed the thematic interpretation of this argument (4). The questions are whether the contextual approach in (4) can help solve the causee interpretation puzzle in Teochew *bun*-causative, and what this will tell us about the phasehood issue at LF, given under this approach, LF is parallel to PF which demonstrates a domain sensitivity in terms of post-syntactic works and causee has a special intermediate position in the syntactic structure.

(4)



The rest of this paper is organized as follows. Section 2 provides a comprehensive analysis of the syntactic argument structure for Teochew permissive *bun*-causative. A fine-grained analysis of the causal event structure of this causative is given in Section 3. Section 4 connects the contextual causee interpretation with LF phasehood. Section 5 concludes.

2. Syntax. First, this causative allows independent manner adverbs to modify both the causing and caused events (5). In line with many previous studies (e.g., Pesetsky 1995; Harley 2013), I assume that *v* introduces an eventuality variable. Therefore, this causative has a recursive *v*P structure. Besides, I argue that this causative does not embed a CP since the embedded object cannot be clefted to the right of the causative verb (6).

(5) Nangy meme bun Mimi manman tsao.
Nangy quickly separate Mimi slowly run
'Nangy quickly lets Mimi slowly run.'

(6) *Nangy bun muegia$_i$, Mimi tsia t_i.
Nangy separate stuff Mimi eat
Intended: 'Nangy lets some foodstuffs, Mimi eats.'

Third, following Lin (2006, 2010), I assume that Teochew as a Sinitic language, like Mandarin, does not have a TP. However, the grammaticality of embedding a progressive marker *lo* in the embedded structure suggests this causative embeds an AspP (7). Fourth, the causee in this causative is an adjunct rather than an argument. Evidence comes from the following facts. On the one hand, it cannot be promoted by passives (8).

(7) Nangy bun Mimi lo tsao.
Nangy separate Mimi PROG run
'Nangy lets Mimi be running now.'

(8) *Mimi$_i$ kə Nangy bun t_i tsao.
Nangy PASS Nangy separate run
Intended: 'Mimi is let by Nangy to run.'

On the other hand, the causee cannot block the promotion of the embedded object due to the locality concern (9). It also cannot be raised by a language-specific cleft construction that only targets arguments (10).

(9) Muegia$_i$ kə Nangy bun Mimi tsia t_i.
stuff PASS Nangy separate Mimi eat
'Some foodstuffs are let to be eaten by Mimi by Nangy.'

(10) *Nangy bun tsao gai dai Mimi.
Nangy separate run PART COP Mimi
Intended: 'It is Mimi that Nangy lets run.'

Most importantly, though it is shown in (3) that the causee fails many agentive diagnostics, it is still adjoined to VoiceP. First of all, the embedded predicate in this causative cannot be unaccusative or stative including psych verb (11). I assume stative predicates (Folli & Harley 2007), like unaccusatives, do not have a severed external argument (Kratzer 1996). This suggests this causative requires its complement to have an external argument, or at least a functional layer where an external argument is positioned.

(11) a. *Nangy bun Mimi bualoqu.
Nangy separate Mimi fall.over
Intended: 'Nangy lets Mimi fall over.'

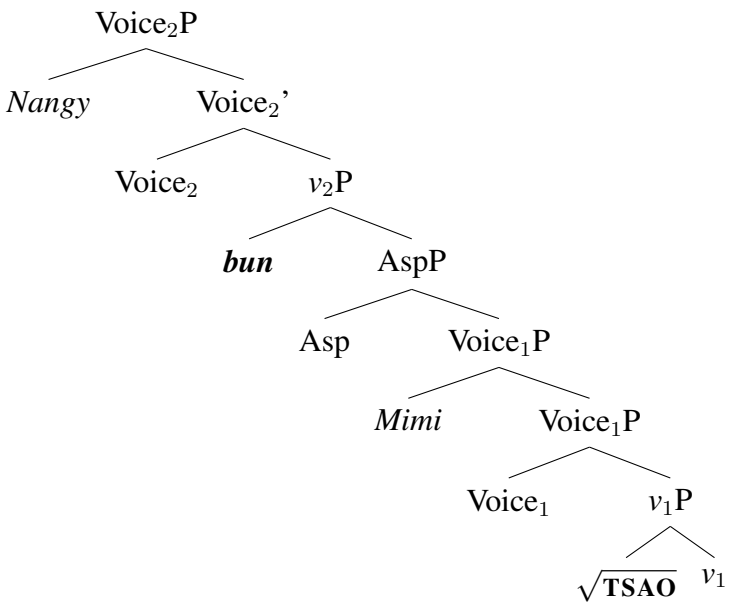
b. *Nangy bun Mimi gia Xingy / u uangu.
Nangy separate Mimi fear Xingy / have toy
Intended: 'Nangy lets Mimi fear Xingy/own toys.'

Given that the causee in the *bun*-causative is incompatible with all agentive modifications (3), a relatively standard view is to assume that the causee is connected to ApplP. However, an applied argument in Teochew is obligatorily introduced by a functional word *ga?*. This morpheme is not seen in all the grammatical examples above, not to mention that the causee can occur with an applied argument, preceding it in the surface structure (12). This suggests ApplP is not an option, and the causee is adjoined to a layer higher than ApplP.

(12) Nangy bun Mimi ga? Xingy soi sakou.
Nangy separate Mimi APP Xingy wash clothes
'Nangy lets Mimi wash clothes for Xingy.'

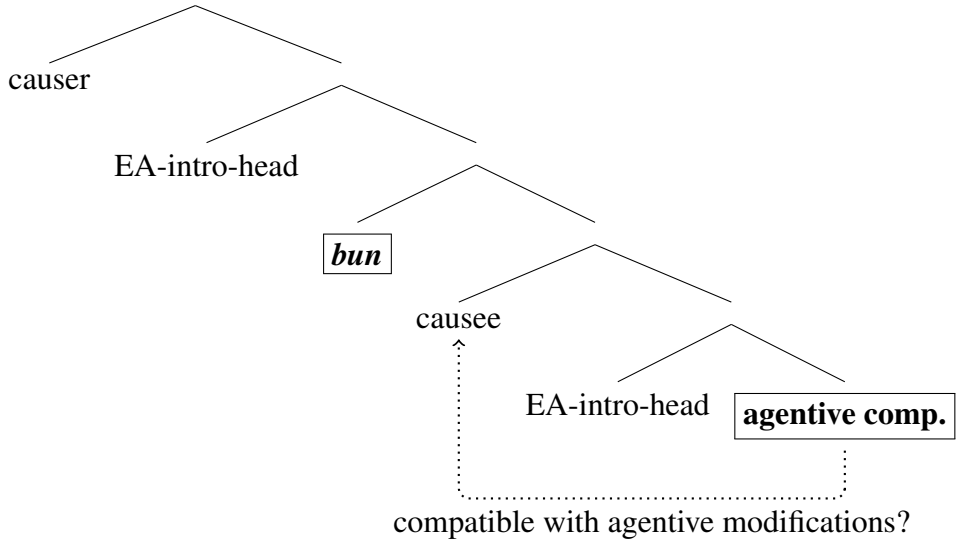
Besides, when the actuality of the caused event is known, the compatibility between the causee and instrumental phrases as well as agent-oriented comitatives increases slightly (to be elaborated more in Section 4), suggesting the causee has some agentivity in such a context. Then the only option left is VoiceP. The same pattern, i.e., the causee is still connected to VoiceP but with a reduced or no agency diagnosed by its incompatibility with some or all agentive modifications, is also observed in other languages like Acehenese (Legate 2014), Turkish (Nie 2022), Georgian (Nash 2020) and Icelandic (Sigurdsson & Wood 2021), suggesting Teochew is not a special case. Following Alexiadou et al. (2015), I assume the causer is introduced by VoiceP. Based on the discussion so far, the syntactic structure of (2) is in (13).

(13)



However, if a complement-oriented contextual approach to the external argument interpretation (4) is adopted, this will incorrectly predict that the causee connected to VoiceP with an agentive complement is compatible with all agentive modifications (14). However, given that causee is an understudied intermediate/shared argument surrounded by the embedding causative verb and the embedded predicate, it might be the case that the contextualization condition of causee interpretations is more complex than the complement-oriented one.

(14)



Following this logic, Section 3 will continue to explore the causal event structure interpretation of this causative.

3. Semantics. In this section, I will compare the *bun*-causative with another Teochew causative with a similar recursive VoiceP/*v*P structure (argumentations omitted due to space limit), i.e., the *hai*-causative. I will show the *bun*-causative not only is a probabilistic causative without the actuality entailment of the caused event, but also has a permissive implication encoding a social hierarchical relation between event participants.

When it comes to the actuality entailment of the caused event, first, it is felicitous to negate the caused event in the *bun*-causative, but not in the *hai*-causative (15a). Second, it is possible to paraphrase the *hai*-causative into result-targeting *gao* (lit. 'achieve')-construction, but impossible in the case of the *bun*-causative (15b). Therefore, I conclude that the *bun*-causative is a probabilistic causative while the *hai*-causative is a deterministic causative.

(15) a. Nangy bun / #hai Mimi tsao, dansi yi bo tsao.
Nangy separate / hurt Mimi run but 3.SG NEG run
Simplified: 'Nangy causes Mimi to run, but Mimi does not run.'

b. Nangy hai / ∗bun gao Mimi tsao.
Nangy hurt / separate achieve Mimi run
Simplified: 'Nangy causes Mimi to run.'

Following the 'modal component hypothesis' in Koenig & Davis (2001), I argue that the causative verb *bun* sublexically encodes a modality. As for the modal flavor, given both the causer and the causee must be [+animate] (16), I adopt the *volitional modality* in Portner (2009), which has a circumstantial modal base and a stereotypical ordering source, and is related to 'the ways circumstances affect the actions available to a volitional individual'.

(16) a. Nangy / ∗Uitsiaki bun Mimi tsao.
Nangy / autofeeder separate Mimi run
'Nangy/*autofeeder lets Mimi run.'

b. Nangy bun Mimi / *giu tsao.
Nangy separate Mimi / ball run
'Nangy lets Mimi/*the ball run.'

When it comes to representing the causal relation, I get rid of the monolithic CAUSE operator. In the same spirit of Portner (1998), I treat the caused event as the final stage of the causing event developing along certain courses under the influence of modality. Therefore, the lexical entry of the causative verb *bun* is as follows.

(17) $[\![bun]\!] \rightsquigarrow \lambda P.\lambda e_2.\lambda w.[\forall w'.w' \in \text{VOL}(w,e_2) \rightarrow \exists e_1.P(e_1)(w')]$

where e_1 represents the caused event and e_2 represents the causing event. VOL(w,e_2) is defined as BEST(CIRC,ST,e_2), i.e., the set of worlds w' in $\cap$CIRC(e_2) such that there is no w'' in $\cap$CIRC(e_2) where $w'' \prec_{ST,e2} w'$. (to be revised)

In addition, Teochew consultants also report that the *bun*-causative has a 'permissive' implication. To be more specific, in the 'permissive' *bun*-causative, the causee, different from that the

hai-causatives, is interpreted as being interacting with causer in a way related to the social relationship: the causer, as someone with a higher social status, permitted the causee, someone with a lower social status, to do something by providing permission.

Evidence from sentence-final particles further proves the existence of this social status implication. In Teochew, the clause-final emphatic yes/no-question marker *meh* can only target an event participant of higher social status in the context, no matter its syntactic position. It can target both the causer and the causee in the *hai*-causative, dependent on the world knowledge of the speaker; but it can only target the causer in the *bun*-causative (18).

(18) a. Nangy hai Mimi tsao meh?
Nangy hurt Mimi run $Q_{social-status}$
'Is it Nangy that causes Mimi to run (adversative)?'
or 'Is it Mimi that Nangy causes to run (adversative)?'

b. Nangy bun Mimi tsao meh?
Nangy separate Mimi run $Q_{social-status}$
The only reading: 'Is it Nangy that causes Mimi to run (adversative)?'

In the literature, it has been long noticed that certain cross-linguistic periphrastic causatives have a similar 'permissive' or 'allowing' interpretation. However, to my knowledge, there is very few explicit discussion on what a 'permissive' implication is in the context of causative. This study aims to fill this research gap.

Kamp (1973) is one of the important early analyses regarding the 'permission' implication. When it comes to the specific function of a permission statement, though Kamp does not provide a formal semantic analysis for all the observations he makes, there are some important insights we could take from his discussion (19).

(19) a. 'Permission' involves a certain authority of the permitter over the permittee.

b. 'Permission' removes the previous prohibitions towards a certain class of individual actions in which the permittee might engage.

c. 'Prohibition' means the permittee is prohibited from realizing any possible world in which the individual action is true.

d. 'Prohibition' has different 'forces', i.e., *weak* (vague) and *strong* (specific; may enforced by means of more severe penalties).

Building on these insights, I argue that when it comes to the lexical semantics of the 'permissive' causative verb *bun*, it sublexically encodes a deontic modality with a circumstantial modal base and a deontic ordering force sensitive to the social hierarchical relation between the causer and the causee. Besides, this 'permissive' implication is encoded as a presupposition rather than in the content. Because this implication projects from negation (20a) and modals (20c), but is bound in the *if*-clause (20b) and occurs in an modified form when being the complement of attitude verb *believe* (20d) (cf. Potts 2005).

(20) a. Nangy bo bun Mimi tsao.
Nangy NEG separate Mimi run
→ The causing event involves permission.

b. Yasi Nangy ubian unhu, Nangy oi bun Mimi tsao.
if Nangy can allow Nangy will separate Mimi run
→ The causing event involves permission.

c. Nangy koleng bun Mimi tsao.
Nangy might separate Mimi run
→ NO

d. Xingy siosiang Nangy bun Mimi tsao.
Nangy believe Nangy separate Mimi run
→ It is Xingy rather than the speaker that believes that the causing event involves permission.

The lexical semantics of the 'permissive' causative verb *bun* is accordingly finalized in (21). There are two sublexical modalities in the lexical semantics of this causative. One is the volitional modality, which affects the at-issue meaning, and the other is the deontic modality located in the presupposition **encoding the social hierarchical relation between the causer and the causee in the deontic ordering source**.

(21) $[\![bun]\!] \rightsquigarrow \lambda P.\lambda e_2.\lambda w{:}\exists e_1.\mathrm{DEON}(P)(e_1)(w).[\forall w'.w' \in \mathrm{VOL}(w,e_2) \rightarrow \exists e_1.[P(e_1)(w')]$

DEON(P)(e_1)(w) is true in w iff

a. There exists some worlds w"$\in$DEON(w,e_2) such that $P(e_1)$ happens in w" but not before the starting time of e_2; in additions, there also exists some other worlds $v \in$DEON(w,e_2) such that $P(e_1)$ does not happen/is prohibited in v.

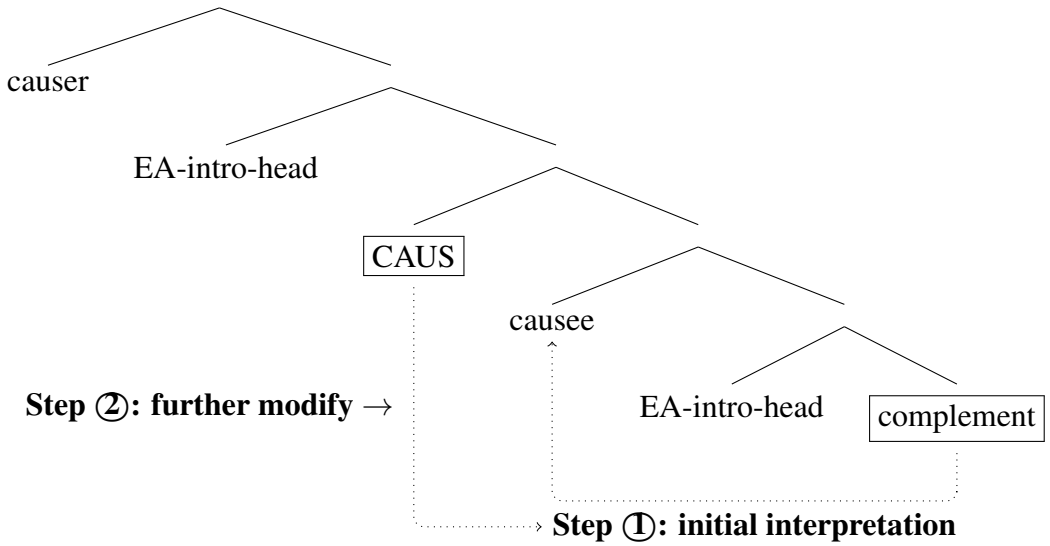
b. DEON(w,e_2) is defined as BEST(CIRC,DEON_{SC},e_2), i.e., the set of worlds w' in $\bigcap$CIRC(e_2) such that there is no w" in $\bigcap$CIRC(e_2) where $w" <_{DEON_{SC},e2} w'$.

c. **For every event *e* in the domain of $\bigcap\mathbf{DEON}_{SC}(\boldsymbol{e_2})$, $\forall \boldsymbol{x}.[\mathbf{AGENT}(\boldsymbol{e_2},\boldsymbol{x}) \rightarrow \forall \boldsymbol{y}.[\mathbf{AGENT}(\boldsymbol{e},\boldsymbol{y}) \rightarrow \boldsymbol{x} \prec \boldsymbol{y}\ ]\ ]$. $\prec$ is ranked along *kinship hierarchy*, *age*, *seniority*... when cross-scale ranking happens, *kinship hierarchy* $\prec$ *age* $\prec$ *seniority*.** (final)

Now, we have already had a comprehensive analysis of both the argument structure and the event structure of this causative. It is time to solve the causee interpretation puzzle.

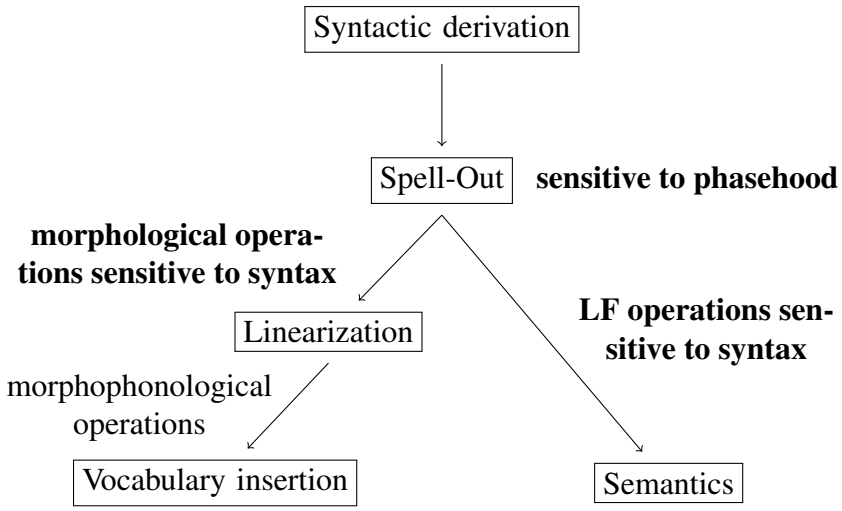
4. Interpreting the causee: implications for LF phasehood. In Section 2, I have argued that a complement-oriented approach, though widely adopted for other external arguments, cannot solve our causee interpretation puzzle. In this study, I propose a *two-step* contextualization mechanism for causee interpretations (22). More specifically, When the causee is introduced by or adjoined to the external argument introducing head, based on the complement-oriented approach applied to other external arguments including the causers, it will have an initial argument interpretation. This initial interpretation will be further modified by the lexical semantics of the causative verb by being scoped over during the process of semantic composition.

(22)



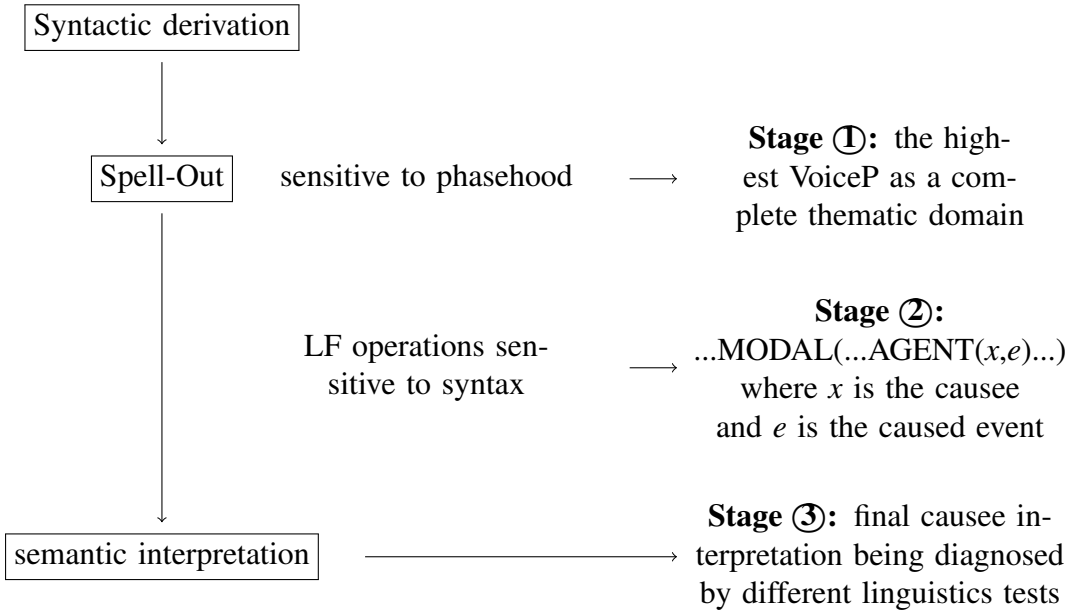
The next question is how exactly this mechanism is implemented. Adopting Distributed Morphology (Halle & Marantz 1993, 1994) featuring 'late-insertion', I assume the parallelism between less-studied LF and the well-studied PF side in (23). More specifically, I assume that after syntactic derivations sensitive to phasehood, a chunk of syntactic structure will be sent to PF and LF respectively. On the PF side, there are still some morphological operations sensitive to syntax at the stage between 'Linearization' and 'Spell-Out', paralleling the stage where there might be some LF operations sensitive to syntax (e.g., Quantifier Raising) between 'Semantics' and 'Spell-Out' on the LF side. On the PF side, after 'Linearization', phonological operations start to take place, which leads to the 'Vocabulary insertion' assigning sounds/signs to those abstract linguistic representations. In parallel, on the LF side, after those LF operations are finished, abstract linguistic representations will be sent to the 'Semantics' department to be assigned meaning. All of these together illustrate the division of labor between different modules of grammar. Such a parallelism between PF and LF is also found in recent studies adopting an 'allosemy' approach (e.g., Wood 2015; Myler 2016; Wood & Marantz 2017).

(23)



When it comes to the causee interpretation on the LF side, (24) illustrates how it is achieved in a post-syntactic way. I argue that the highest VoiceP is a defining boundary of phase, given it is a complete thematic domain and serves as a border between event structure and temporal structure. When it comes to the stage after 'Spell-Out' but before the 'Semantics' module at the LF side, I argue that the compositional semantics derivation will lead to the fact that the initial AGENT interpretation of causee fed by the agentive eventuality of the embedded predicate will be scoped over by the modalities sublexically encoded in the embedding causative verb and be modified acccordingly.

(24)



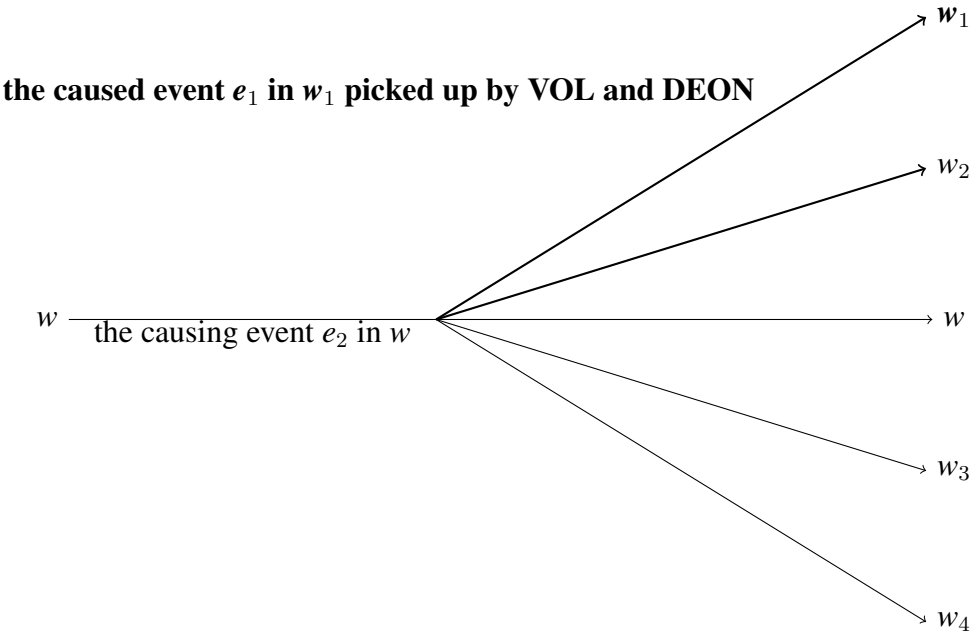
The following shows a more detailed elaboration. First of all, at Stage ① in (24), the Voice_2P in (13) will be sent to the LF. At Stage ②, for compositionality purposes, I adopt an intensional version of event semantics in (25). Due to space limits, I skip the detailed derivational process. Basically at the end of semantics derivations, the initial AGENT interpretation of the causee will fall within the scope of the deontic modality in the presupposition and of the volitional modality in the at-issue meaning (cf. (21)).

(25) a. The intensional Voice interpretation rule (cf. Kratzer 1996):
$[\![\text{Voice}]\!] \rightsquigarrow \lambda x_e.\lambda e_v.\lambda \boldsymbol{w}_s.\text{AGENT}(e, x)(\boldsymbol{w})$ if the eventuality of the Voice complement is (grammatically) agentive

b. The intensional event identification rule (cf. Kratzer 1996):
If α is a branching node, $\{\beta, \gamma\}$ is the set of α's daughters, and $[\![\beta]\!]$ is in the domain of $<e, <v, <\boldsymbol{s}, t>>>$, and $[\![\gamma]\!]$ is in the domain of $<v, <\boldsymbol{s}, t>>$, then $[\![\alpha]\!] = \lambda x_e.\lambda e_v.\lambda \boldsymbol{w}_s.$ $[\![\beta]\!](x)(e)(\boldsymbol{w}) \wedge [\![\gamma]\!](e)(\boldsymbol{w})$.

Given that the caused event e_1 happens in those possible worlds jointly picked by these sublexical modalities (26), it follows that the final interpretation of causee as a participant of this event will be modified accordingly (Stage ③).

(26)



As was shown in Section 1, the final complex causee interpretation is indirectly reflected by their (in)compatibility with different linguistics diagnostics. It is easy to see that the causee will be interpreted as someone of a lower social status than the causer (cf. (18)) under the influence of the deontic modality with a deontic ordering source sensitive to the social hierarchy between the event participants (cf. (21)). Situations are more complicated regarding those agentive modifications. As summarized in Table 1, when the actuality of the caused event is known, the acceptability between the causee and instrumental phrases as well as agent-oriented comitatives in the *bun*-causative will slightly upgrade (data omitted due to space limit); and such a non-uniform pattern is also observed in Teochew *kə*-causative, Mandarin *rang*-causative (Luo 2024) and Icelandic 'let'-causative (Sigurdsson & Wood 2021).[1]

Modifications	**Teochew** *kə*-causative	**Teochew** *bun*-causative	**Mandarin** *rang*-causative	**Icelandic** 'let'-causative
Certain agent-oriented adverbs	×	×	×	×
Rational clauses	×	×	?	×
Instrumental phrases	??	??	✓	✓
Agent-oriented comitatives	??	??	✓	✓

Table 1. Nonuniform (in)compatibility between causee and agentive modifications

Following Luo (2024), I argue that both instrumental phrases and agent-oriented comitatives are reliable tests targeting the 'control' property of a grammatical AGENT and such property is

[1] In the case of two Teochew causatives, the context regarding the actuality of the caused event is provided. Also, Sigurdsson & Wood (2021) does not talk about the (in)compatibility between causee and agent-oriented comitative, but my Icelandic consultant reports that the causee in the 'let'-causative can be modified by this agentive modification.

sensitive to event actuality. This explains the patterns of these two diagnostics in Table 1 (compare (3)). When it comes to agent-oriented adverbs (in this paper, it is 'intentionally') and rationale clauses, following Luo (2024), I argue that neither of them target a grammatical AGENT. Instead, the adverb 'intentionally' targets the 'intentional/volitional' property and the rational clauses target properties belonging to an 'event responsible party', and these properties belong to an intuitive AGENT, which is not necessarily a grammatical AGENT. Most importantly, all of the properties discussed above can be easily built into the circumstantial modal base of the volitional modality in the at-issue meaning of the causative verb *bun*, limiting the circumstances under which the caused event will happen, which in turns contextualizes the causee interpretation.

I propose the causee will be finally interpreted as a *Prospective DOER with a lower social status*.[2] Note that I do not propose a new thematic role or label. Instead, in the same spirit of Dowty (1991) and many others, I showed that the argument interpretation is contextualized by the syntactically-oriented event structure where this argument is an event participant, echoing many of the previous studies (see citations above). Till this stage, the causee interpretation puzzle in Section 1 is solved.

5. Discussion. This study shows that in Teochew *bun*-causative, the intermediate external argument, i.e., the causee, is contextualized as a Prospective DOER with a lower social status, by the syntactically-oriented causal event structural interpretation influenced by the sublexical modal properties of the syntactically-higher causative verb.

I argue, therefore, that argument thematic interpretations are contextualized as post-syntactic derivatives, echoing the well-studied 'late-insertion' work at PF. Causee, as one type of external argument, requires a more complex two-step contextualization mechanism than other external arguments. Given that the verbal domain is always considered a strong phase in the literature mainly because of the theta-role assignment originally, this study contributes another empirical case to the discussion. The inconsistency within the Voice_1P (13) revealed by the incompatibility between the causee and those diagnostics shows that phasehood/domain sensitivity also exists in the LF. This study echos the phase discussion in Ramchand (2018), i.e., it is the event structure composition rather than any specific syntactic head (recall the *bun*-causative embeds an AspP) that helps define the syntactic and semantic zones within the verb phrase.

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[2] See the discussion on the notion of 'prospectiveness' related to the event actuality in Beavers & Koontz-Garboden (2020), and the notion of 'DOER' related to the reduced agency in Sigurdsson & Wood (2021).

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