

Voice-over-Voice causatives

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“Causal relations are imposed by humans on the input from the world, and the linguist’s task is to understand what it is about language that enables speakers to use it to describe their causal perception.” (Reinhart 2000: 38)

Cross-linguistically, productive causatives may be formed in two fundamentally different ways (Nie 2020a, Nie 2022)

- **Bi-eventive causatives:** Additional event (e.g. Parsons 1990, Hale & Keyser 1993, Levin & Rappaport Hovav 1995, Harley 1995, Folli & Harley 2005, Pylkkänen 2008, Ramchand 2008)
 - Causal relation holds between two events
- **Mono-eventive causatives:** Additional argument (e.g. Doron 1999, Reinhart 2003, Alexiadou et al. 2006, 2015, Schäfer 2008)
 - Causal relation holds between an event and an argument

1. Introduction
2. Two ways of forming productive causatives
 - Turkish: Bi-eventive
 - Tagalog: Mono-eventive
3. Mono-eventive causatives
 - Voice-over-Voice structure
 - Tagalog: Causees can be agentive
 - Zulu: Causatives are not applicatives
4. Causative recursion
 - Bi-eventive causatives can recursive, while mono-eventive causatives cannot
5. Conclusion

Two ways of forming productive causatives

Productive causatives: Constructions with overt causative marking that can be formed on most predicates in the language, including unergatives and transitives

Case studies

- Data from elicitation sessions involving translation, grammaticality judgment and felicity judgment tasks
- Turkish: 3 native speakers living in Turkey and abroad
- Tagalog: 4 native speakers from Metro Manila and Romblon, Philippines living abroad

Productive causatives are formed with the suffix *-t* or *-Dir*¹
(e.g. Göksel 1993, Kural 1996, 1997, Çetinoğlu et al. 2009, Key 2013)

(1) Ayşe **koş-tu**.

Ayşe run-PST

'Ayşe ran.'

(2) Öğretmen Ayşe-yi **koş-tur-du**.

teacher Ayşe-ACC run-CAUS-PST

'The teacher made Ayşe run.'

¹*-t* appears after bisyllabic roots ending in a vowel or a liquid; *-Dir* appears elsewhere, subject to voicing assimilation and vowel harmony.

Manner adverbs

Context: Cinderella doesn't know how to dance but wants to impress at the ball. A fairy gives her the power to dance elegantly.

- (3) Peri külkedisi-ni *zarifçe* **dans** **et-tir**-di.
fairy Cinderella-ACC elegantly dance do-CAUS-PST
'The fairy made Cinderella **dance** *elegantly*.'

Context: Cinderella doesn't want to dance at the ball. A fairy makes her dance with an elegant spell.

- (4) Peri *zarifçe* külkedisi-ni **dans** **et-tir**-di.
fairy elegantly Cinderella-ACC dance do-CAUS-PST
'The fairy *elegantly* **made** Cinderella dance.'

Manner adverbs

Context: Özlem is a choir teacher. One of her students keeps singing too loudly. Özlem gets frustrated and shouts at the student to sing quietly.

- (5) Özlem *ses-li bir şekil-de* öğrenci-ye *sessizce* şarkı
Özlem loud one way-LOC student-DAT quietly song
söyle-t-ti.
sing-CAUS-PST

‘Özlem *loudly* **made** the student **sing** *quietly*.’

Time-related adverbs

Context: Özlem learns that her son Ali will miss the race on Friday, so tomorrow she will register him to run on Saturday.

- (6) *Yarın* Özlem Ali-yi *cumartesi günü* **koş-tur**-acak.
Tomorrow Özlem Ali-ACC Saturday day run-CAUS-FUT
'*Tomorrow* Özlem will **make** Ali **run** *on Saturday*.'

Negation

Context: Mary's father asks her teacher to put her in the running race at school. The teacher lets Mary play volleyball instead.

- (7) Öğretmen Mary-yi koş-**tur**-ma-dı.
teacher Mary-ACC run-CAUS-NEG-PST
'The teacher did *not* **make** Mary run.'

Context: Mary wants to run the race but is injured. The teacher prevents her from running.

- (8) Öğretmen Mary-yi koş-**tur**-ma-dı.
teacher Mary-ACC run-CAUS-NEG-PST
'The teacher made Mary *not* **run**.'

How many events are represented in the syntax?

	Turkish
Manner adverbs	2
Time-related adverbs	2
Negation	2

Turkish productive causatives are **bi-eventive** (e.g. Göksel 1993, Kural 1996, 1997, Çetinoğlu et al. 2009, Key 2013, Nie 2022)

Productive causatives were generally assumed to be bi-eventive across all languages, until recently

Productive causatives are formed with the prefix *pa-* (Maclachlan 1996, Travis 2000, Rackowski 2002, Nie 2020a,b)

(9) **B**<in>**asa-**∅ ni Kiko ang libro.
<PFV>read-PV GEN.PN Kiko NOM book
'Kiko read the book.'

(10) **P**<in>**a-basa-**∅ ni Luz si Kiko ng libro.
<PFV>CAUS-read-PV GEN.PN Luz NOM.PN Kiko GEN book
'Luz made Kiko read a book.'

Examples are in VSO word order and in the Patient Voice (PV); other voices do not differ with respect to eventhood diagnostics

Manner adverbs

Context: Cinderella doesn't know how to dance but wants to impress at the ball. Fairy Godmother gives her the power to dance beautifully.

- (11) P<in>a-sayaw-Ø *nang maganda*
<PFV>CAUS-dance-PV ADV beautiful
ni Fairy Godmother si Cinderella.
GEN Fairy Godmother NOM.PN Cinderella
'Fairy Godmother made Cinderella **dance** *beautifully*.'

Manner adverbs

Context: Cinderella doesn't want to dance at the ball. Fairy Godmother makes her dance with a beautiful spell.

- (12) # P<in>a-sayaw-Ø *nang maganda*
<PFV>CAUS-dance-PV ADV beautiful
ni Fairy Godmother si Cinderella.
GEN Fairy Godmother NOM.PN Cinderella
Intended: 'Fairy Godmother *beautifully* **made** Cinderella dance.'

(13)

?? *Maganda=ng* p<in>a-sayaw-Ø
beautiful=LK <PFV>CAUS-dance-PV
ni Fairy Godmother si Cinderella.
GEN Fairy Godmother NOM.PN Cinderella

Manner adverbs

Context: A student in the school play is saying his lines too quietly. The teacher makes him talk loudly.

- (14) P<in>**a-salita**-Ø *nang malakas* ng guro ang bata.
<PFV>CAUS-talk-PV ADV loud GEN teacher NOM child
'The teacher made the child **talk loudly**.'

Manner adverbs

Context: A student in the school play forgets that it is his line. The teacher shouts at him to get him to talk.

- (15) P<in>a-salita-Ø nang malakas ng guro ang bata.
<PFV>CAUS-talk-PV ADV loud GEN teacher NOM child

Intended: 'The teacher *loudly* **made** the child talk.'

- (16) ?? Malakas na p<in>a-salita-Ø ng guro ang bata.
loud LK <PFV>CAUS-talk-PV GEN teacher NOM child

Time-related adverbs

Context: Luz learns that her daughter Maria will miss the race this week, so tomorrow she will register Maria to run next week.

- (17) (**Bukas*) pa~**pa-takbu**-hin ni Luz (**bukas*)
tomorrow IPFV~CAUS-run-PV GEN.PN Luz tomorrow
si Maria sa *susunod na linggo*.
NOM.PN Maria OBL next LK week
'(**Tomorrow*,) Luz will **make** Maria **run** *next week*.'

Negation

Context: Luz's father asks her teacher to put her in the running race at school. The teacher lets Luz play volleyball instead.

- (18) *Hindi* niya **p<in>a-takbo-∅** si Luz.
NEG 3SG.GEN <PFV>CAUS-run-PV NOM.PN Luz
'S/he did *not* **make** Luz run.'

Context: Luz wants to run the race but is injured. The teacher prevents her from running.

- (19) # *Hindi* niya **p<in>a-takbo-∅** si Luz.
NEG 3SG.GEN <PFV>CAUS-run-PV NOM.PN Luz
Intended: 'S/he made Luz *not* **run**.'

How many events are represented in the syntax?

	Turkish	Tagalog
Manner adverbs	2	1
Time-related adverbs	2	1
Negation	2	1

Tagalog productive causatives are **mono-eventive** (Nie 2020a,b)

Other languages with mono-eventive causatives: Georgian (Nash 2020), Choctaw (Tyler 2020), Icelandic (Sigurðsson & Wood 2021), etc.

Productive causatives differ cross-linguistically in how many events they encode (Nie 2020a, Nie 2022)

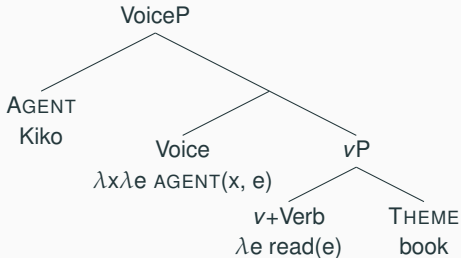
- What does this mean for the syntax?
- Bi-eventive causatives
 - Two events represented in the syntax
 - Causer is the agent of the causing event, causee is the agent of the caused event
- Mono-eventive causatives
 - One event represented in the syntax
 - Causer and causee are associated to the same event

Productive causatives

Syntactic analysis

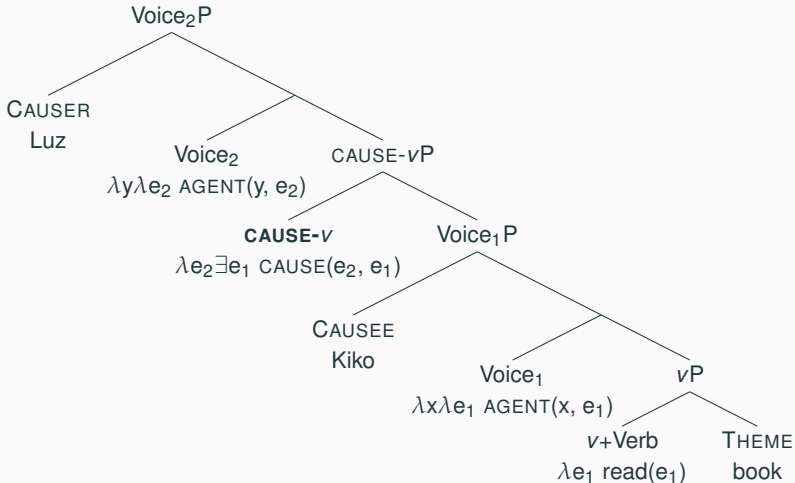
- Little v introduces events (e.g. Harley 1995, Cuervo 2003, Pylkkänen 2008, Legate 2014) , verb roots are adjoined to v (Marantz 1997)
- Functional heads assign thematic roles to external arguments: Voice introduces agents (Kratzer 1996), Appl introduces applied arguments (Pylkkänen 2008)

(20) Transitive clause



Productive causatives

(21) Bi-eventive causative: verb-over-verb structure



Mono-eventive causatives

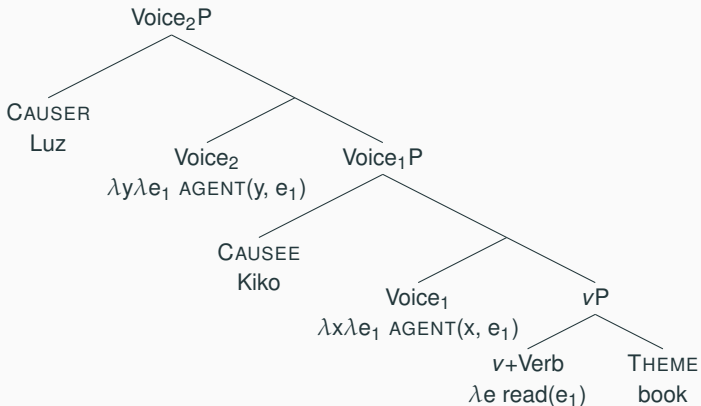
Bi-eventive causatives: Causer and causee are both agents, associated with different events

Mono-eventive causatives: Causer and causee are associated with the same event

- Many proposals for how causees are introduced
- Voice: Causee is agentive (e.g. Nie 2020a,b, Sigurðsson & Wood 2021)
- Appl: Causee is not agentive (e.g. Kim 2011, Legate 2014, Nash 2020)
- Voice/Apppl hybrid: Causee has an intermediate status (e.g. Myler & Mali 2021, Akkuş 2022)

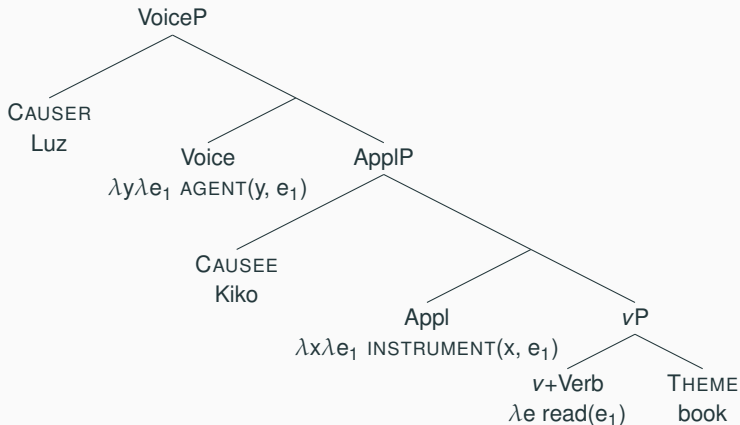
Voice-over-Voice structure

(22) Mono-eventive causative: Voice-over-Voice structure



Voice-over-Voice structure

(23) Mono-eventive causative: Voice-over-Appl alternative



Voice-over-Voice structure

Evidence for a Voice-over-Voice structure in at least some languages

Tagalog

- Causees are agentive, accessible to modification by agent-oriented adverbs and instruments
- Causees are associated with different Austronesian voice morphology than applied arguments

Zulu

- Causees do not pass agentivity diagnostics but nonetheless pattern differently from applicatives

Causers and causees both exhibit properties of agents (Nie 2020b)

Agent-oriented adverbs

- (24) Um-iyak si Kiko nang sinasadya.
AV.PFV-cry NOM.PN Kiko ADV deliberately
'Kiko **cried** *deliberately*.'
- (25) P<in>a-iyak-Ø ko si Kiko
<PFV>CAUS-cry-PV 1SG.GEN NOM.PN Kiko
nang sinasadya.
ADV deliberately
'I made Kiko *deliberately* **cry**.' /
'I *deliberately* **made** Kiko cry.'

Causers and causees both exhibit properties of agents (Nie 2020b)

Instruments

- (26) P<in>a-lakad-Ø ko si Kiko
<PFV>CAUS-walk-PV 1SG.GEN NOM.PN Kiko
gamit ang tungkod.
using NOM cane
'I made Kiko **walk** with the cane.' /
'With the cane I **made** Kiko walk.'
- (27) P<in>a-luto-Ø ko si Kiko ng pansit
<PFV>CAUS-cook-PV 1SG.GEN NOM.PN Kiko GEN pancit
gamit ang kahoy.
using NOM stick
'I made Kiko **cook** pancit with the stick.' /
'With the stick I **made** Kiko cook pancit.'

Austronesian voice morphology tracks the ANG-marked pivot

- (28) B<um>ili **ang bata** ng tela sa palengke.
<AV.PFV>buy **ANG child** NG cloth SA market
'The child bought some cloth at the market.' Agent Voice
- (29) B<in>ili-Ø ng bata **ang tela** sa palengke.
<PFV>buy-PV NG child **ANG cloth** SA market
'The child bought the cloth at the market.' Patient Voice
- (30) B<in>ilh-**an** ng bata ng tela **ang palengke**.
<PFV>buy-LV NG child NG cloth **ANG market**
'The child bought some cloth at the market.' Locative Voice
- (31) I-b<in>ili ng bata ng tela **ang nanay**.
CV-<PFV>buy NG child NG cloth **ANG mother**
'The child bought some cloth for mother.' Circumstantial Voice

Austronesian voice morphology tracks the ANG-marked pivot
Applicative pivots trigger Locative Voice or Circumstantial Voice,
while causee pivots trigger Patient Voice

- (32) **I**-b<in>ili ng bata ng tela **ang nanay**.
CV-<PFV>buy NG child NG cloth ANG **mother**
'The child bought some cloth for mother.' Circumstantial Voice
- (33) **P**<in>a-bili-∅ ng bata ng tela **ang nanay**.
<PFV>CAUS-buy-PV NG child NG cloth ANG **mother**
'The child made mother buy some cloth.' Patient Voice

Applicatives

- (34) uMfundo u-nik-e u-mntwana ujeqe.
1.Mfundo 1SM-give-PFV 1.child 1.steamed.bread
'Mfundo gave the child steamed bread.'
- (35) u-Mlungisi u-gijim-el-a uNtombi
1.Mlungisi 1SM-run-APPL-FV 1.Ntombi
'Mlungisi is running for Ntombi.'

Causatives

- (36) ubaba u-cul-is-a abantwana
AUG.1father 1SM-sing-CAUS-FV AUG.2children
i-Nkosi Sikelel' iAfrika.
AUG5-9lord bless AUG.5Africa
'Father made the children sing the national anthem.'

Causees do not pass agentivity diagnostics

Agent-oriented adverbs

(37) uSipho u-khla-**is**-a izingane ngamabomu.

1.Sipho 1SM-cry-CAUS-FV 10.children deliberately

'Sipho *deliberately* **made** the children cry.'

NOT: 'Sipho made the children *deliberately* **cry**.'

(38) uThemba u-fail-**is**-a uSipho itesti ngamabomu.

1.Sipho 1SM-fail-CAUS-FV 1.Sipho 5.test deliberately

'Themba *deliberately* **made** Sipho fail the test.'

NOT: 'Themba made Sipho *deliberately* **fail** the test.'

No two applicatives and no two causatives can combine

- (39) *uMfundo u-nik-el(-el)-e umama umntwana
1.Mfundo 1SM-give-APPL-APPL-PFV 1.mother 1.child
ujeqe.
1.steamed.bread

Intended: 'Mfundo gave the child steamed bread for mother.'

- (40) *ubaba u-cul-is(-is)-a inkosi
AUG.1father 1SM-sing-CAUS-CAUS-FV AUG.9chief
abantwana i-Nkosi Sikelel' iAfrika.
AUG.2children AUG5-9lord bless AUG.5Africa

Intended: 'Father made the chief make the children sing the national anthem.'

However, an applicative and causative can combine with each other

- (41) ubaba u-cul-**is-el**-a inkosi
AUG.1father 1SM-sing-CAUS-APPL-FV AUG.9chief
abantwana i-Nkosi Sikelel' iAfrika.
AUG.2children AUG5-9lord bless AUG.5Africa
'Father made the children sing the national anthem for the chief.'

This suggests that applicatives and causatives are treated differently in the syntax

- Appl introduces applied arguments, Voice introduces causees

What thematic role does the causee bear?

- Thematic Uniqueness: Arguments of the same event must be assigned different thematic roles (Fillmore 1968, Perlmutter & Postal 1977, Chomsky 1981, Bresnan 1982, Carlson 1984)
- Many possible solutions
 - Link in a causal chain
 - Affected experiencer
 - Dedicated Caus head (Pylkkänen 2008, Key 2013)
 - 'Low agent' (Tollan 2018)
 - Doer but not initiator (Sigurðsson & Wood 2021)
 - Contextual allosemy (Nie 2020a)
- Causers and causees must have different theta roles, but they can both be agentive in some languages

Causative recursion

Can causatives freely recurse in all languages?

(42) Anne made Sam make Lee make ... Ron fail the test.

Bi-eventive causatives

- Svenonius (2005): No language with morphological causatives allows more than one level of causative embedding
- Key (2013): Turkish does not allow causative recursion
- However, Nie (2022) demonstrates that Turkish and Japanese both allow causative recursion
 - “Double causatives” have 2 causing events, as shown by eventhood diagnostics

What about mono-eventive causatives?

Tagalog does not allow causative recursion (Nie 2020a)

- (43) * **P**<in>**a-(pa-)kanta-∅** ni Luz si Kiko
<PFV>CAUS-CAUS-sing-PV GEN.PN Luz NOM.PN Kiko
ng bata.
GEN child

Intended: 'Luz made Kiko make a child sing.'

- (44) * **I-p**<in>**a-(pa-)takbo** ako ni Luz
CV-<PFV>CAUS-CAUS-run 1SG.NOM GEN.PN Luz
kay Kiko.
OBL.PN Kiko

Intended: 'Luz made Kiko make me run.'

Causative recursion

Some Bantu languages allow multiple applicatives, but none of them allow multiple causatives (Nie 2024)

Kinyarwanda

- (45) Umugóre a-ra-som-er-er-a umugabo abáana
woman SM-PRES-read-APPL-APPL-ASP man children
igitabo.
book

'The woman is reading the book to the children for the man.'

(Kimenyi 1995)

- (46) Habimana y-a-men-esh(*-esh)-eje (*umugabo)
1.Habimana 1S-PST-break-CAUS-CAUS-FV 1.man
umwana igikombe.
1.child 7.cup

'Habimana made (*the man make) the child break the cup.'

(Jerro 2016)

The causative formation strategy of a language correlates with the availability of causative recursion

- Bi-eventive causatives: Recursion is in principle available
 - Causal relation holds between two events
... $\text{CAUSE}(e_2, e_1) \wedge \text{CAUSE}(e_3, e_2) \wedge \dots$
- Mono-eventive causatives: Recursion is not available
 - Causal relation is between an event and an argument
... $*\text{CAUSER}(x, e) \wedge \text{CAUSER}(y, e) \wedge \dots$
... $*\text{CAUSEE}(x, e) \wedge \text{CAUSEE}(y, e) \wedge \dots$
 - Thematic Uniqueness: Two arguments associated with the same event cannot bear the same thematic role

Concluding remarks

- Productive causatives can be bi-eventive or mono-eventive
- Mono-eventive causatives have a Voice-over-Voice structure
- Causees in mono-causatives can be agentive and/or treated differently from applied arguments
- Mono-eventive causatives cannot recurse
- What to do about Thematic Uniqueness
 - Often the causee is seen as the argument that is 'special'
 - The causer could be special
 - The non-embedded agent could be special

Thank you, merci! Maraming salamat!

SJSU

SSHRC  CRSH



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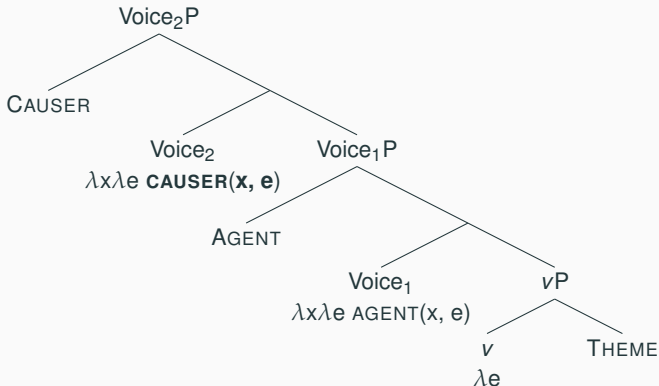
Appendix

Contextual allosemy analysis (Nie 2020a,b)

- Mono-eventive: One event-introducing *v* head
 - Event can have its own agent, introduced by Voice
- Productive causative: Add a causer argument
- Causer argument is introduced by a second Voice head
 - Causer can be animate, agentive
- Voice can directly embed another Voice head
 - Contextual allosemy rule at LF (e.g. Wood 2015, Myler 2016):
Voice assigns a CAUSER/CAUSEE thematic role in the context of another Voice head
 - Voice assigns an AGENT role otherwise

Mono-eventive causatives

(47) Voice directly embeds another Voice



(48) $[[\text{Voice}]] \leftrightarrow \lambda x \lambda e \text{ CAUSER}(x, e) / _ \text{ Voice}$

(49) $[[\text{Voice}]] \leftrightarrow \lambda x \lambda e \text{ AGENT}(x, e)$

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