Voice restructuring

Iva Kovač, Magdalena Lohninger, Susi Wurmbrand

University of Vienna

1 Introduction

- A range of languages and constructions display an operation of long object A-movement [LOM].
- "Long" does not refer to a non-local operation; it indicates that the movement is to a higher predicate.
  - An embedded argument is promoted to matrix subject.
  - Diagnostics: Case of subject (NOM), agreement with matrix verb, language specific A-movement properties (see e.g., Polinsky and Potsdam 2008)

(1) DP.NOM Voice.PASS/PV.IMPL [Voice.DEFAULT/PASS/PV ~~DP.OBJ~~]

This talk

- Four types of LOM
- Ingredients of what a unified account would look like
- A mini-typology of LOM
- An interesting puzzle (brought to one of the authors by Lisa almost two decades ago)
- A direction for solving the puzzle using the *Synthesis* model

Main conclusions:

- Matrix and embedded predicates affect each other.
- The syntactic composition of a complement restricts the matrix predicate.
- Voice restructuring involves an obligatory argument-sharing dependency, which may semantic in nature, but nevertheless sensitive to the syntactic structure.

This work has been supported by the Austrian Science Fund (FWF) Project *Implicational hierarchies in clausal complementation* (P34012-G).

2 Voice restructuring

2.1 Long object A-movement constructions

- Four types of LOM
  - Raising
  - Voice Matching: Chamorro, Isbukun Bunun
  - Default Voice: Acehnese, Croatian, Czech, European Portuguese, German, Italian, Japanese, Kannada, Mayrinax Atayal, Serbian, Slovenian, Spanish, Takibakha Bunun
  - Crossed Control: Indonesian, Javanese, Malagasy, Tagalog, Tongan, Tukang Besi, Samoan (Polinsky and Potsdam 2008).
- We use these terms as labels for constructions as defined by the properties in Table 1.
- Certain verbs may appear in more than one configuration (e.g., *begin, want*); thus, the terms refer to the configurations with these properties, not necessarily specific verbs.
- No embedded syntactic subject (all LOM contexts):
  - There is no embedded syntactic subject (no overt DP in Spec,VoiceP, no PRO; see Wurmbrand 2001, Chen 2010, Wu 2013, Wurmbrand and Shimamura 2017, Berger 2019).
  - As a result of the missing syntactic subject, the embedded object cannot receive ACC (which is tied to a full (active) VoiceP) and becomes case-dependent on the matrix predicate.

		Voice restructuring		
Properties (when LOM)	Raising	Voice Matching	Default Voice	Crossed Control
Embedded syntactic subject	no	no	no	no (only incorp.)
Matrix subject theta-role	no	yes	yes	yes
Embedded semantic subject	only in passive	yes	yes	yes
Matrix passive	no	yes	yes	no/possible?
Embedded passive/PV	possible	yes	no	yes

Table 1: LOM

- Raising:
  - All of the constructions we will discuss allow LOM (i.e., a form of raising).
  - But: We reserve the term "Raising" as a label for constructions with the properties in Table 1/(2) (not just any configuration that involves A-movement).
  - Raising: the matrix predicate is non-thematic, i.e., unaccusative, and hence cannot be passivized (1AEX: Perlmutter and Postal 1984).

(2) Raising

a. *Nova schien zu spielen* / *einzuschlafen.*
Nova seemed to play.UNERGATIVE / fall.asleep.UNACCUSATIVE
'Nova seemed to play/fall asleep.'

b. *Der Frachter scheint versenkt zu werden.*
The freighter seems sunk.CAUSATIVE to become
'The freighter seems to be sunk.'

- Voice restructuring:
  - The other three constructions involve thematic matrix verbs (e.g., the matrix verb imposes animacy restrictions).
  - There is an obligatory embedded semantic subject (we will illustrate this later).
  - The main differences between the three Voice restructuring constructions lie in the distribution of Voice properties (Voice morphology, origin of the subject; see 2.2).

(3) Voice Matching

a. *Pära tafan-ma-chägi ma-na'fanätuk ni lalahi siha.*
FUT 1.PL-[PASS]-try PL.[PASS]-hide OBL men PL
Lit. 'We will be tried to be hidden by the men.'
'The men will try to hide all of us.' Chamorro [Chung 2004: 204, (6a)]

b. *Iliskinun-ku bunbun-a tu baliv-un.*
want.[PV]-1.SG.ACC banana-that.NOM TU buy-[PV]
Lit. 'The bananas are wanted to be bought by me.'
'I wanted to buy the bananas.' Isbukun Bunun [Wu 2013: 40, (10b)]

(4) Default Voice

a. *naqaru-un i t-um-uting ni yumin ku bawaq*
finish-[PV] LNK beat-[AV]-beat GEN Yumin NOM pig
'Yumin finished beating/killing the pigs.' Mayrinax Atanal [Chen 2010: 5, (8a)]

b. *As casas foram abacadas de construir em 1950.*
the houses were finished to build in 1950
'They finished to build the houses in 1950.' Europ. Portuguese [Cinque 2002: 5, (7a)]

(5) Crossed Control = CC (Regular control = RC) Indonesian

a. *Kucing-nya coba di-cium oleh Esti.*
cat-3.SG try PASS-kiss by Esti
RC: 'Her cat tried to be kissed by Esti.'
CC: 'Esti tried to kiss her cat.' Passive [Sato and Kitada 2012: (27)]

b. *Kucing-nya coba men-cium Esti.*
cat-3.SG try AV-kiss Esti
RC: 'Her cat tried to be kissed by Esti.'
CC: *'Esti tried to kiss her cat.' *CC with AV [Sato and Kitada 2012: (28)]

c. *Anak$_i$ mau kami semua ø-peluk dia$_i$.*
child want 1.PL all PV-hug 3.SG
RC: 'The child wants us all to hug it.'
CC: *'We all want to hug the child.' *CC with subject DP [Berger 2019: 63, (14)]

d. *Anak mau kamu ø-peluk.*
child want 2.SG PV-hug
RC: 'The child wants you to hug it.'
CC: 'You want to hug the child.' PV (incorporated subject) [Berger 2019: 62, (9)]

2.2 How many constructions?

- A difficulty in the classification is the distribution of Voice properties, specifically passive/PV, and the origin of the subject (interpretation).
- If Voice is morphologically unmarked, different syntactic values could be (and have been) assumed.
- Most accounts of Voice restructuring involve a kind of Voice dependency (implemented differently in different frameworks), which leads to some form of Voice and/or subject sharing.
- A theoretical question is then which element is the original element, which the dependent one.
- This is a particular issue in Voice Matching and Crossed Control.

Matrix	Embedded	Construction
original passive/PV	dependent Voice: default	Default Voice
original passive/PV	dependent Voice: passive/PV	Voice Matching
dependent voice: default	original passive/PV	Crossed Control
dependent voice: passive/PV	original passive/PV	Crossed Control
original passive	original passive	Control (may not be possible)

- One controversy concerns the question of whether Crossed Control is a separate configuration.
- Kroeger and Frazier (2020) suggest a complex predicate approach, where (presumably) the argument structures of the matrix and embedded predicates are shared, and passive applies to the entire unified argument structure. If morphology is not necessarily marked on the higher verb, as in (5), a Crossed Control interpretation could be seen as the result of the shared argument structure and the realization of passive only on the lower verb.
- Thus in a sense, Crossed Control would be similar/identical to Voice Matching.
- It is also not clear to us that all properties of Crossed Control (e.g. the presence of the subject in the lower predicate in (5d)) can be covered under a complex predicate/Voice Matching analysis (see Polinsky and Potsdam 2008 for other reasons and data controversies, and Wurmbrand 2001, 2007 for general issues regarding complex predicate formation in Voice restructuring).

Illustration

- We illustrate the difficulty in determining the underlying structure by a surface double passive.

(6) *Perampok di-coba* [*di-tangkap oleh polisi*]
thief PASS-try [PASS-catch by police]
'The police tried to catch the thief.' [Berger 2019: 70, (34)]

a. **Crossed Control** (indicated):
Embedded passive original (police=embedded agent), matrix passive/subject are shared
'The police tried to catch the thief.'

b. **Voice Matching**:
Matrix passive original (police=matrix agent), embedded passive/subject are shared
'The police tried to catch the thief.'

c. **Double original passive**:
Lit. 'The thief was tried to be caught by the police.'
Two original implicit agents; if they are the same (some form of control):
'The police tried to catch the thief.'

d. **No 'regular' control**
Typically, the non-Crossed Control interpretation refers to configurations where the initial DP is interpreted as the matrix subject (here *the thief* as the tryer). But it is not clear how the initial DP could ever be the agent of *try*. For this, matrix passive would have to be vacuous and copied from the embedded Voice, without sharing of the lower agent. Thus in any account, it seems, the following is not predicted to be possible.
*'The thief tried to be caught by the police.'

Double Passive?

- A cross-linguistic empirical difficulty concerns constructions with double passive (see Wurmbrand and Shimamura 2017).
- It is not clear to us whether double (true) passive and LOM exists (even non-LOM examples such as (7b) are marked).
- If it exists, it is important to guarantee that the two implicit agents are unified (as indicated in (6c)), e.g., via some form of implicit control.

(7) a. %That's how our politics has been taught to be played.
[speech 4/17/08 by Obama; J. Merchant, p.c.)]
b. #It was decided to be kicked out of the club. [van Urk 2013: 170, fn. 6]
c. Calvin was promised/offered to be allowed to stay up late. [van Urk 2013: 169, (3c)]

Main (open) theoretical question regarding Crossed Control:

- Where does passive/the implicit agent information originate?
- We will continue to follow the hypothesis that Crossed Control is different from Voice Matching.

3 Towards a unified account

3.1 First approximation

(8) **Bare VP** (Wurmbrand 2001, Polinsky and Potsdam 2008)
a. (*was*) *tried*/*managed*/*want* [$_{VP}$ V DP.OBJ] LOM possible (but see below)
b. [$_{VoiceP}$ DP/PRO Voice.AGENT V DP.OBJ.ACC] LOM impossible

- Reasons for why a bare VP structure is not sufficient:
  - Morphology: The differences between Default Voice, Voice Matching, and Crossed Control are difficult to model.
  - Subject interpretation (see below)
  - Unaccusativity puzzle (see section 4.1)

3.2 Second approximation

(9) **Restructuring VoiceP (Voice$_R$.___)** (Wurmbrand and Shimamura 2017, Berger 2019)

a. *was tried, managed* [Voice$_R$.___ V DP.OBJ] Default Voice, Voice Matching

b. Voice$_R$.___ *try, want* [Voice.PASS/PV.(implicit.agent) V DP.OBJ] Crossed Control

c. [DP/PRO Voice.AGENT V DP.OBJ.ACC] LOM impossible

- Basic mechanisms:
  - LOM (possibly also other restructuring effects) involves a Voice dependency: either the matrix or the embedded Voice is underspecified and acquires features from the other Voice.
  - Difference between Default Voice and Voice Matching: essentially a morphological difference how/when shared Voice is spelled out.

Important additional property

- Even in Default Voice configurations, the presence of Voice seems to be motivated on interpretational grounds:
  - Although there is no syntactic subject, the embedded predicate is interpreted with a subject.
  - There is an obligatory argument sharing relation between the matrix and embedded predicates.
  - If Voice carries the information that there is an argument-of relation, the semantic properties can be tied to the structure (below we will try to make a stronger argument that they must be tied to the structure).
  - Ideal: the Voice dependency also results in argument sharing (the theory regarding this is still somewhat underdeveloped).

(10) Long Passive with Default Voice in German

a. *Der Wagen und der Traktor wurden zu reparieren versucht.*
the.NOM car and the.NOM tractor were.PL to repair tried.
Lit. 'The car and the tractor were tried to repair.'
'They tried to repair the car and the tractor.'

b. tryer=repairer: Implicit matrix agent (IMPL) corresponds to understood embedded agent (u.SUBJECT).

c. DP.NOM IMPL Voice.PASS/PV [u.SUBJECT Voice.DEFAULT ~~DP.OBJ~~]

(11) Long unaccusative movement with Default Voice in German

a. *Der Brief ist ihm nicht zu entziffern gelungen.*
the.NOM letter is him.DAT not to decipher managed
'He did not manage to decipher the letter.'

b. manager=decipherer: Matrix dative DP corresponds to understood embedded agent (u.SUBJECT).

c. DP.NOM DP.DAT Appl.DAT [u.SUBJECT Voice.DEFAULT ~~DP.OBJ~~]

(12) Voice Matching in Isbukun Bunun = (3b)

a. *Iliskinun-ku* *bunbun-a* *tu* *baliv-un.*
want.[PV]-1.SG.ACC banana-that.NOM TU buy-[PV]
Lit. 'The bananas are wanted to be bought by me.'
'I wanted to buy the bananas.' [Wu 2013: 40, (10b)]

b. wanter=buyer: Implicit matrix agent (IMPL) corresponds to understood embedded agent (u.SUBJECT), embedded and matrix Voice have matching values.

c. DP.NOM IMPL Voice.PASS/PV [u.SUBJECT Voice.PASS/PV ~~DP.OBJ~~]

(13) Crossed Control in Indonesian

a. *rumah itu* *mau/ingin di-hancurkan oleh mereka*
house that want PASS-destroy by 3.PL
'They want to destroy that house.' [Polinsky and Potsdam 2008: 1630, (52a)]

b. #*kota ini* *mau/ingin di-hancurkan oleh api*
town this want PASS-destroy by fire
#'Fire wants to destroy this town.' [Polinsky and Potsdam 2008: 1625, (29b)]

c. destroyer=wanter: Understood matrix experiencer (u.SUBJECT) corresponds to implicit embedded agent (IMPL).

d. DP.NOM u.SUBJECT Voice.DEFAULT [IMPL Voice.PASS/PV ~~DP.OBJ~~]

3.3 Ingredients of a unified account

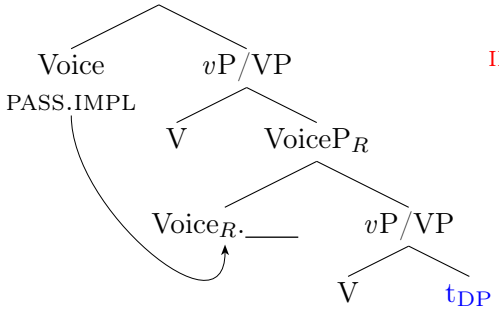
Voice dependency and argument-sharing

- Voice restructuring involves the (literal) sharing of an argument (only one syntactic argument is underlyingly present, but it is 'distributed' over two predicates).
- This sharing is mediated by a Voice dependency, which distributes argument-related features in two predicates.
- We follow approaches in which the implicit argument in passive is syntactically represented as features on Voice (Legate 2010, 2012); see (14).
- As such, they are transmitted in a Voice dependency.
- The argument-sharing relation is unlikely to be a control (PRO) relation:
  - When the 'licensing' predicate is passive, the implicit agent still obligatorily corresponds to an argument in the other clause.
  - The dependency goes in the opposite direction in Crossed Control.
  - LOM suggests that there is no syntactic argument in the embedded clause.

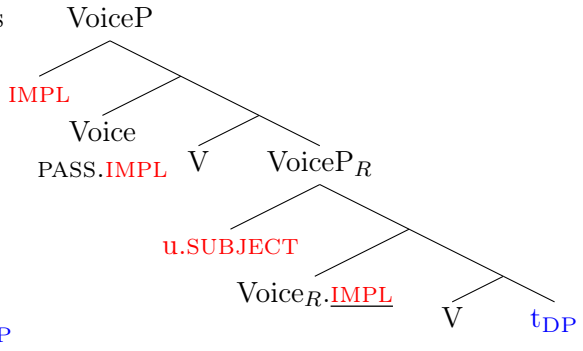
Notation

- Features on Voice are semantically interpreted, indicated as IMPL (the implicit agent/experiencer in passive), or u.SUBJECT (the understood subject interpretation arising after Voice sharing).
- The u.SUBJECT could correspond to PRO in some cases, but not in LOM.

(14) Syntax



Semantics



The following summary comprises of syntactic and semantic properties:

(15) a.	DP.NOM IMPL Voice.PASS/PV.IMPL [u.SUBJECT Voice.DEFAULT ~~DP.OBJ~~]	= DV
b.	DP.NOM DP.DAT Appl.DAT [u.SUBJECT Voice.DEFAULT ~~DP.OBJ~~]	= DV
c.	DP.NOM IMPL Voice.PASS/PV.IMPL [u.SUBJECT Voice.PASS/PV ~~DP.OBJ~~]	= VM
d.	DP.NOM u.SUBJECT Voice.DEFAULT [IMPL Voice.PASS/PV.IMPL ~~DP.OBJ~~]	= CC
e.	Other Crossed Control configurations?	
(16)	DP.NOM: A–movement (Wurmbrand 2001, Polinsky and Potsdam 2008, Chen 2010, Berger 2019, Kroeger and Frazier 2020, Wu 2013)	
(17)	Matrix Voice/Appl — emb. Voice: Voice dependency (Wurmbrand and Shimamura 2017)	
(18)	DP.DAT/IMPL — u.SUBJECT: lexical/semantic (Chierchia 1983, 1984a,b, Wurmbrand 2001, 2002, Polinsky and Potsdam 2008, Grano 2015); clause union (Aissen and Perlmutter 1976, 1983, Kroeger and Frazier 2020); Voice dependency (Wurmbrand and Shimamura 2017)	

But that is still not enough...

4 Synthesis in Voice restructuring

4.1 The unaccusativity puzzle

Causative–inchoative alternation

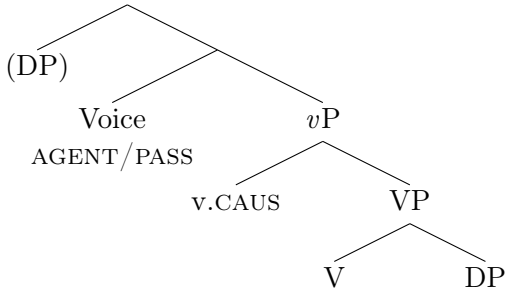
(19) a. *Nova versenkt den Frachter.*
Nova sinks the.ACC freighter.
'Nova is sinking the freighter.' Causative: VoiceP

b. *Der Frachter versinkt.*
The.NOM freighter sinks.
'The freighter is sinking.' Inchoative: no VoiceP

c. *Der Frachter wurde versenkt / *versunken.*
The.NOM freighter was sunk.CAUS / *sunk.INCH.
'The freighter was sunk.' Causative: VoiceP; *Inchoative: no VoiceP

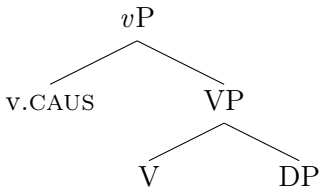
- Passive: requires a VoiceP
- Raising, unaccusatives can thus not be passivized

(20) Causative



versenken 'sink sth'
fällen 'fell/chop'
einschläfern 'put to sleep'

Inchoative



versinken 'sink'
fallen 'fall'
einschlafen 'fall asleep'

Back to LOM

- Raising and Voice restructuring show the opposite distribution regarding causatives/inchoatives:
  - Default Voice configurations with LOM cannot embed inchoatives (or other unaccusatives).
  - Raising configurations with LOM cannot embed causatives.

(21) Voice restructuring

a. *Der Frachter wurde zu versenken / *versinken versucht.*
The.NOM freighter was to sink.CAUS / *sink.INCH tried.
'People tried to sink the freighter.' [Pitteroff 2014: 235, (31a)]

b. *Mado-ga {sim-e / *sim-ar-i} -tuzuke-rare-tei-ta.*
window-NOM {close-CAUS / *close-INCH-EV} -continue-PASS-PROG-PAST
'They kept the window closed.' [Wurmbrand and Shimamura 2017: 185, (11b)]

c. *was tried/continued* [Voice_R.____ V DP.OBJ] Causative: VoiceP

d. **was tried/continued* [V DP.OBJ] *Inchoative: *v*P/VP

(22) Raising

a. *Der Frachter scheint zu *versenken / versinken.*
The.NOM freighter seems to *sink.CAUS / sunk.INCH
'The freighter seems to be sinking.'
Possible (irrelevant) Non-LOM interpretation for versenken:
Subject raising with dropped object: 'The freighter seems to be sinking something.'

b. **seemed* [Voice_R.____ V DP.OBJ] *Causative: VoiceP

c. *seemed* [V DP.OBJ] Inchoative: *v*P/VP

(23) Raising (embedded passive)

a. *Der Frachter scheint versenkt / *versunken zu werden.*
The.NOM freighter seems sink.CAUS / sunk.INCH to become
'The freighter seems to be sinking/to be sunk.'

b. *seemed* [Voice.PASS.IMPL V DP.OBJ] Causative: VoiceP

c. *passive of inchoative *Inchoative: *v*P/VP

- Raising and Voice restructuring thus show (almost) complementary distribution:
  - Voice restructuring LOM requires an embedded VoiceP (Causative, *Inchoative), which has to be underspecified.
  - Raising does not allow an underspecified VoiceP (Inchoative, *Causative), but allows a passive VoiceP.
  - Table 1 (repeated): if VoiceP indicates that there is a semantic subject, the generalization is that Voice restructuring requires an embedded subject, whereas Raising only allows one in passive.

		Voice restructuring		
Properties (when LOM)	Raising	Voice Matching	Default Voice	Crossed Control
Embedded syntactic subject	no	no	no	no (only incorp.)
Matrix subject theta-role	no	yes	yes	yes
Embedded semantic subject	only in passive	yes	yes	yes
Matrix passive	no	yes	yes	no/possible?
Embedded passive/PV	possible	yes	no	yes

4.2 Putting things together

- There is an interplay of restrictions for the embedded clause and the matrix predicate.
- The synthesis model in Wurmbrand and Lohninger (2019) captures the distribution (see below for selection).
- Depending on the composition of the complement, the matrix verb will be either Raising or Voice restructuring.
- Illustration: matrix *begin*, which can be either Raising or Voice restructuring
  - When matrix verb is passive, it cannot be Raising (unaccusatives do not passivize), but must be Voice restructuring.
  - When the surface subject is not animate, *begin* is non-thematic, hence Raising.

(24) a. *Der Baum wurde zu fällen / *fallen begonnen.*
The.NOM tree was to fall.CAUS / *fall.INCH begun
'People began to cut down the tree.' [Pitteroff 2014: 236, (31b)]
Voice restructuring

b. *Der Baum beginnt zu *fällen / fallen*
The.NOM tree begins to *fall.CAUS / fall.INCH
'The tree is beginning to fall.' Raising

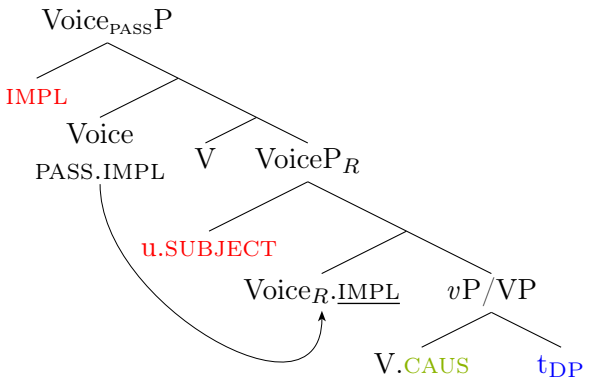
c. *Der Baum beginnt gefällt / *gefallen zu werden*
The.NOM tree begins fall.CAUS.PCPT / fall.INCH.PCPT to become
'The tree is beginning to fall.' Raising

Causative versions

(24a) *Der Baum wurde zu fällen / *fallen begonnen.*
The.NOM tree was to fall.CAUS / *fall.INCH begun
'People began to cut down the tree.' [Pitteroff 2014: 236, (31b)]

- Matrix Voice.PASS encodes the implicit matrix agent (note again that IMPL and u.SUBJECT are not syntactic arguments; we indicate them for convenience to show the interpretation).
- Embedded Voice$_R$.___ needs to be licensed, which can be done by the matrix passive Voice.
- Argument-sharing as a result of Voice-sharing.

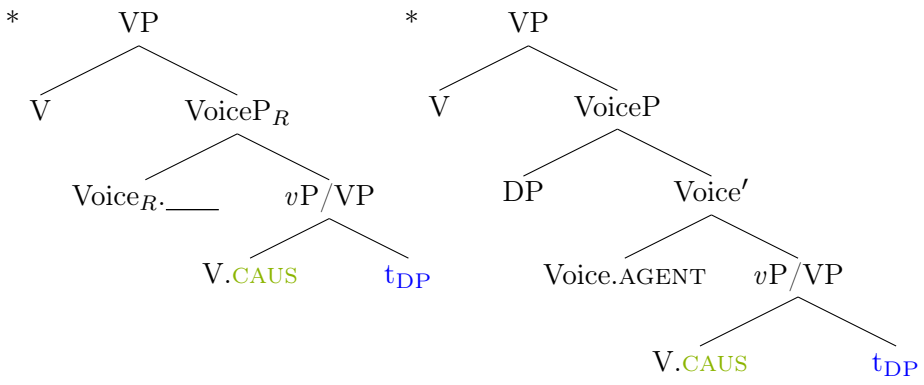
(25) Voice restructuring: (21), (24a)



(24b) *Der Baum beginnt zu *fällen / fallen*
The.NOM tree begins to *fall.CAUS / fall.INCH
'The tree is beginning to fall.' Raising

- Matrix verb is Raising (*the tree* cannot be the thematic subject of *begin*).
- There is no matrix Voice (Raising=unaccusative; there is no passive)
- Embedded Voice$_R$.___ cannot be licensed (a full embedded VoiceP is not possible since this would block LOM).

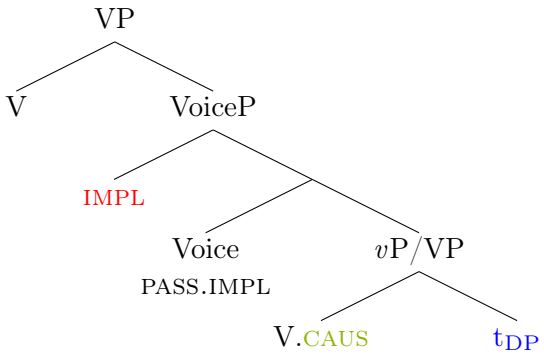
(26) Raising (embedded causative): (22), (24b)



(24c) *Der Baum beginnt gefällt / *gefallen zu werden*
The.NOM tree begins fall.CAUS.PCPT / fall.INCH.PCPT to become
'The tree is beginning to fall.' Raising

- Matrix verb is Raising; there is no matrix Voice (Raising=unaccusative; there is no passive)
- Embedded Voice is a fully specified passive Voice, which does not need to be licensed.

(27) Raising (embedded passive): (23), (24c)



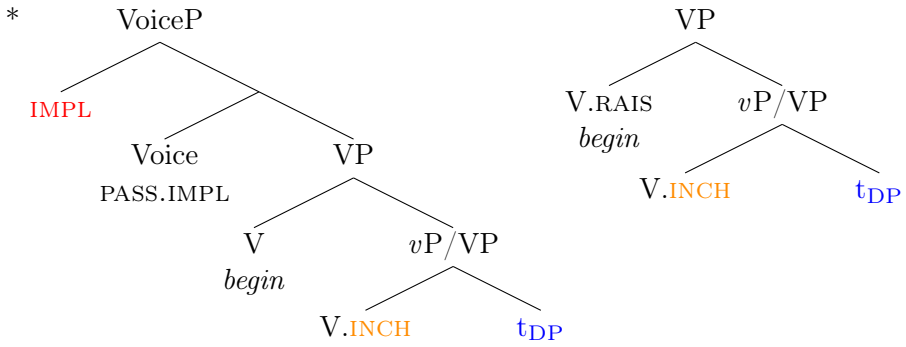
Inchoative versions

- (24c): The inchoative version is excluded due to the lack of Voice—unaccusatives cannot passivize.

(24) a. *Der Baum wurde zu fällen / *fallen begonnen.*
The.NOM tree was to fall.CAUS / *fall.INCH begun
'People began to cut down the tree.' [Pitteroff 2014: 236, (31b)]
Voice restructuring

b. *Der Baum beginnt zu *fällen / fallen*
The.NOM tree begins to *fall.CAUS / fall.INCH
'The tree is beginning to fall.' Raising

(28) Voice restructuring: (21), (24a) Raising: (22), (24b)



- Why can the complement not be an inchoative Voice-less vP/VP in Voice Restructuring, whereas it can (must) be in Raising?

- Structurally, nothing would be going wrong: LOM would be possible in (24a), as it is in (24b).
- Something requires an embedded Voice$_R$.____ in Voice Restructuring.
- This cannot be a c-selectional restriction of *begin*, since the smaller structure is possible in Raising (see also below).

4.3 Synthesis

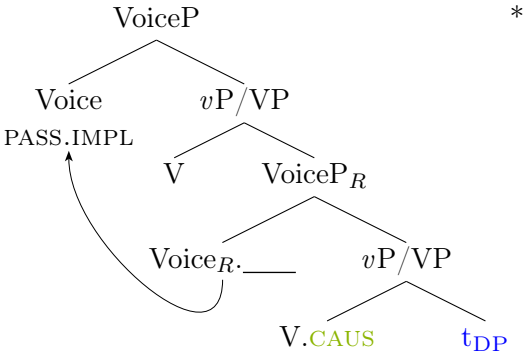
- Restrictions from both, matrix and embedded predicates, have to be satisfied.
- Choices in one clause affect the properties of the other clause.
- This can be a mutual relation.

	Underspecified Voice$_R$.____ (caus)	Fully valued complement (inch, caus, pass)
Voice Restructuring	✓	* (restrictions from above)
Raising	* (restrictions from below)	✓

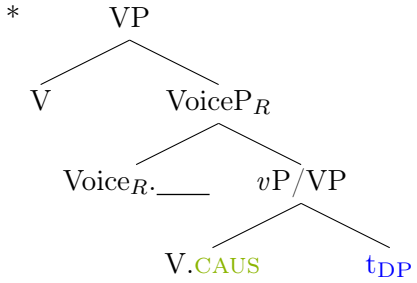
Restrictions from below

- Inchoative vs. causative structures (vP/VP vs. VoiceP)
- Underspecified Voice$_R$.____ needs a higher argument-related head to provide features and content.
- Voice$_R$.____ needs to look up for a value.

(29) Voice restructuring



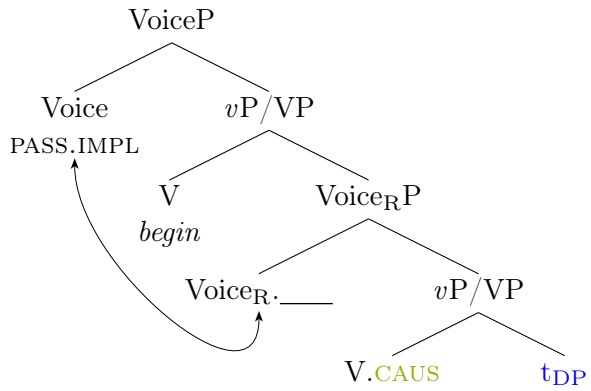
Raising



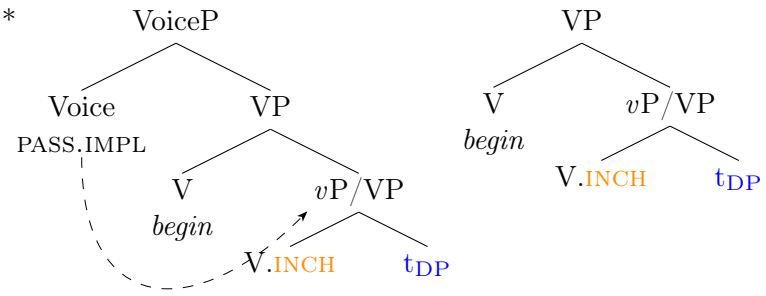
Restrictions from above (preliminary)

- Voice restructuring predicates do not just license lower Voice, they need to obligatorily do so, and "give" their Voice features to an embedded element (to establish argument-sharing).
- A Voice restructuring predicate (in contrast to a Raising predicate) needs to look down for an argument to share.
- Raising verbs have no arguments, hence are free to combine with any type of complement (that meets the restrictions from below).
- In this sense, the type of complement restricts the type of matrix predicate.

(30) a.



b. *



Against pure selection, and pure semantic control

- *begin* in German can combine with any type of complement:
  - vP/VP: triggers LOM with a matrix Raising verb
  - Underspecified Voice$_R$.___: triggers LOM with a matrix Voice restructuring verb
  - Voice.PASS: triggers LOM with a matrix Raising verb
  - Full VoiceP with an overt DP subject: triggers subject raising, but no LOM.
  - Full VoiceP with PRO: triggers some size restructuring effects, but no LOM.
  - Full CP: no restructuring effects
- To solve the unaccusativity puzzle, a selectional restriction (e.g., *begin* must select VoiceP) is not motivated.
- Indeed, "selection" appears to go in the other direction—the composition of the embedded complement restricts the matrix predicate.
- A pure semantic approach to the required argument-sharing from above also does not seem to be sufficient: Why couldn't there be an argument "added" (30b) (i.e., the inchoative turned into a causative) in the semantics?
- Instead: the syntax (whether there is a VoiceP or not) restricts the semantics, and the argument-sharing requirement is sensitive to the syntax.

5 Summary and Conclusion

Generalizations:

- In Voice restructuring LOM, the complement must contain an unsaturated argument position that can be associated with the matrix "controller".
- In Raising LOM, the complement cannot contain any unsaturated argument positions or unvalued Voice features.

(31) A mini-typology of LOM:

a.	Voice.PASS/PV *try, want* [Voice$_R$.____ V DP.OBJ]	Default Voice, Voice Matching
b.	Voice$_R$.____ *try, want* [Voice.PASS/PV V DP.OBJ]	Crossed Control
c.	*seem, begin* [(Voice.PASS/PV) V DP.OBJ]	Raising
d.	[DP/PRO Voice.AGENT V DP.OBJ.ACC]	LOM impossible

Some open questions

- Distribution of Voice in Crossed Control
- Formalization of the argument-sharing mechanism

Main things to take away

- Synthesis in complementation is also visible in Voice restructuring.
- A unified account to Voice restructuring is possible if two mechanisms are involved: a Voice dependency (which can go in either direction), and an argument-sharing mechanism (which may be semantic, but it needs to still see the syntax).

References

Aissen, Judith, and David Perlmutter. 1976. Clause reduction in Spanish. In *Proceedings of the Second Annual Meeting of the Berkeley Linguistics Society*, ed. Henry Thompson et al., volume 2, 1–30. Berkeley: University of California, Berkeley Linguistic Society.

Aissen, Judith, and David Perlmutter. 1983. Clause reduction in Spanish. 360–403. Chicago: The University of Chicago Press.

Berger, Mike. 2019. Indonesian Crossed Control: Expanding the Typology of Restructuring. In *Proceedings of the 36th West Coast Conference on Formal Linguistics*, ed. Richard Stockwell, Maura O'Leary, Zhongshi Xu, and Z.L. Zhou, 61–70. Somerville, MA: Cascadilla Proceedings Project.

Chen, Tingchun. 2010. Restructuring in Mayrinax Atanal.

Chierchia, Gennaro. 1983. Outline of a semantic theory of obligatory control. In *Proceedings of the 2nd West Coast Conference on Formal Linguistics*, ed. Michael Barlow, David P. Flickinger, and Michael T. Westcoat, 19–31. Stanford Linguistics Association.

Chierchia, Gennaro. 1984a. Anaphoric properties of infinitives and gerunds. In *Proceedings of the 3rd West Coast Conference on Formal Linguistics*, ed. Mark Cobler, Susannah MacKaye, and Michael T. Westcoat, 28–39. Stanford Linguistics Association.

Chierchia, Gennaro. 1984b. Topics in the syntax and semantics of infinitives and gerunds. Doctoral Dissertation, University of Massachusetts.

Chung, Sandra. 2004. Restructuring and Verb-initial Order in Chamorro. *Syntax* 7:199–233.

Cinque, Guglielmo. 2002. The interaction of Passive, Causative, and 'Restructuring' in Romance. In *The Syntax of Italian Dialects*, ed. Christina M. Tortora, 50–66. Oxford University Press.

Grano, Thomas. 2015. *Control and restructuring*. Oxford: Oxford University Press.

Kroeger, Paul, and Kristen Frazier. 2020. Crossed-control in Malay/Indonesian as long-distance passivization. In *Proceedings of the Twenty-Sixth Meeting of the Austronesian Formal Linguistics Association (AFLA)*, ed. Ileana Paul, 159–174. University of Western Ontario.

Legate, Julie Anne. 2010. The Structure of Agents in Implicit Passives. Talk given at the 41st annual meeting of the North East Linguistics Society.

Legate, Julie Anne. 2012. Subjects in Acehnese and the nature of the passive. *Language* 88:495–525.

Perlmutter, David, and Paul Postal. 1984. The 1-Advancement Exclusiveness Law. In *Studies in Relational Grammar*, ed. David Perlmutter and Carol Rosen, volume 2, 81–125. The University of Chicago Press.

Pitteroff, Marcel. 2014. Non-canonical *lassen* middles. Doctoral Dissertation, University of Stuttgart.

Polinsky, Maria, and Eric Potsdam. 2008. The syntax and semantics of wanting in Indonesian. *Lingua* 118:1617–1639.

Sato, Yosuke, and Shin-Ichi Kitada. 2012. Successive Feature Inheritance, θ-Features, and the Crossed-Control Construction in Standard Indonesian.

van Urk, Coppe. 2013. Visser's Generalization: The syntax of control and the passive. *Linguistic Inquiry* 44:168–178.

Wu, Hsiao-hung Iris. 2013. Restructuring and Clause Structure in Isbukun Bunun. *Oceanic Linguistics* 52:36–52.

Wurmbrand, Susi. 2001. *Infinitives: Restructuring and clause structure*. Berlin/ New York: Mouton de Gruyter.

Wurmbrand, Susi. 2002. Syntactic versus semantic control. In *Studies in comparative Germanic syntax: Proceedings from the 15th Workshop on Comparative Germanic Syntax*, ed. Jan-Wouter Zwart and Werner Abraham, volume 53 of *Linguistik Aktuell/Linguistics Today*, 95–129. Amsterdam: John Benjamins.

Wurmbrand, Susi. 2007. How complex are complex predicates? *Syntax* 10:243–288.

Wurmbrand, Susi, and Magdalena Lohninger. 2019. An implicational universal in complementation—Theoretical insights and empirical progress. In *Propositional Arguments in Cross-Linguistic Research: Theoretical and Empirical Issues*, ed. Jutta M. Hartmann and Angelika Wöllstein. Mouton de Gruyter.

Wurmbrand, Susi, and Koji Shimamura. 2017. The features of the voice domain: actives, passives, and restructuring. In *The verbal domain*, ed. Roberta D'Alessandro, Irene Franco, and Ángel Gallego, 179–204. Oxford: Oxford University Press.