The features of voice
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1. Introduction

From restructuring and Reverse Agree to a feature system for v

(1) Restructuring: v dependency between matrix and embedded v
(2) A feature F: __ on α is valued by a feature F: val on β, iff [Wurmbrand To appear]
   i. β c-commands α AND
   ii. α is accessible to β. [accessible: not spelled-out]
   iii. α does not value {a feature of β}/ {a feature F of β}. 

This talk

- Feature (valuation) system for v
- Features can be inserted valued or unvalued; in the latter case, the values are determined contextually, yielding different types of constructions
- Unified system for a diverse set of constructions

2. Towards a typology of v

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<th>Passive</th>
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<tbody>
<tr>
<td>q: unvalued</td>
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<tr>
<td>v: AGENT</td>
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Simple clauses | Complex predicates

2.1 Agentive v

- v is inserted with AGENT value (or a different flavor of that value), which translates as an argument introducing head such as Kratzer’s (1996) Agent* (\(\lambda x e \lambda e[s][Agent(x)(e)]\)).
- v: AGENT assigns accusative Case
- I assume a simple vP here; in a voiceP/vP split system (Collins 2005, Alexiadou, Anagnostopoulou & Schäfer 2006, several talks here), the v and q-features would be distributed over the different heads.
- q-features:
  - If inserted unvalued, (4a), v’ must merge with an NP with valued q-features.
  - v: AGENT (or v: PASS; see 2.2.1) identifies the q-features as the AGENT argument
  - Insertion of valued q-features, (4b): pro (e.g., Alexiadou and Anagnostopoulou 1998); no further NP can be merged with v.
2.2 Unvalued \( \nu \)

- \( \nu \) is inserted unvalued; value is determined contextually
- Passive, expletive: \( \nu \) valued in situ by higher head
- Restructuring, retroactive: \( \nu \) valued after incorporation (section 3)

2.2.1 Passive \( \nu \)

- PassP: functional head introducing the passive auxiliary (which values \( \nu+V \) as participle)
- Pass: values \( \nu \) feature \( \nu: \text{PASS} \), which translates as a head introducing an existentially closed agent argument
- Legate (2010, 2012): lexically valued \( \varphi \)-features on \( \nu \) correspond to the features of an (implicit or oblique) agent
- \( \nu: \text{PASS} \) identifies the \( \varphi \)-features on \( \nu \) as an implicit AGENT argument
- Only \( \nu: \text{AGENT} \) assigns accusative Case; object must move into the Agree domain of T (NOM)

2.2.2 Expletive \( \nu^1 \)

- \( \varphi \)-features are inserted unvalued
- Object does not get ACC from \( \nu \) (not \( \nu: \text{AGENT} \)); moves to Spec,\( \nuP \) (phase edge)
- Object values \( \nu \)'s \( \varphi \)-features (no thematic relation is established)
- T values \( \nu \) with a default value; \( \nu: \text{EXPL} \) (Schäfer 2008)

---

(4) a. Active \( \nu \)

\[
\begin{align*}
\text{NP} & \quad \varphi: \text{val}_1 \\
\nuP & \quad \nu' \\
\nu & \quad \text{VP} \\
\nu: \text{AGENT} & \\
\varphi: \_ \_ \\
\end{align*}
\]

b. *pro*

\[
\begin{align*}
\text{vP} & \quad \nuP \\
\nu & \quad \text{VP} \\
\nu: \text{AGENT} & \\
\varphi: \text{val}_1 \\
\end{align*}
\]

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This part has been developed in discussions with Marcel Pitteroff.
(7) a. *The door opened*  
    Inchoative, anti-causative, absolute construction  
    b. *Die Vase zerbrach*  
    The vase broke

_Brazilian Portuguese_ (Negrão and Viotti 2010)

- Absolute construction: no _se_ (sometimes impossible), non-agentive, non-stative; not middle  
- Examples (all active and without _se_): _the carpet finished, the train missed, the program installed, the subject was treating, a serve erred, the garden destroyed, the house sold_

(8) a. *A Maria impregnou a blusa com/de perfume*  
    The Mary scented the blouse with/of perfume  
    ‘Mary scented the blouse’

    b. _A blusa foi impregnada com/de perfume_  
    The blouse was scented with/of perfume  
    passive

    c. _A blusa se impregnou com/de perfume_  
    The blouse _SE_ scented with/of perfume  
    middle

    d. _A blusa impregnou toda *com//de perfume_  
    The blouse scented all with//of perfume  
    anti-causative
    [OK if middle with dropped _se_; R. Lacerda, p.c.]

_Excluded configurations?_

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- PassP and unvalued ϕ-features:
  - Object moves to Spec,vP and values v’s ϕ-features (ϕ: val\(_2\)); Pass values v (v: PASS); v: PASS identifies the object as the agent argument \(\Rightarrow\) Theta mismatch
  - Subject merges in Spec,vP and values v’s ϕ-features (ϕ: val\(_1\)); Pass values v (v: PASS); v: PASS identifies the subject as the agent argument, but semantics of pass requires an existentially closed agent argument; conflicts with overt NP.


_2.2.3 Complex predicates_

(9)  
```
    V
  v: val
    try/let
    V
  v: val
    vP
  v: val
    VP
  v: val
    VP
```

Restructuring \(\Rightarrow\) voice dependency
3. Restructuring

3.1 Summary of proposal

(10) $v$: val $\xrightarrow{}$ VP

\[ \{v\} \quad \{v\} \quad \text{vP} \quad \text{VP} \]

1. Restructuring involves a $v$
2. Restructuring $\text{vP}$ is a (potential) phase
3. Incorporation of $v$ and phase extension
4. Different spell-out options for incorporated $v$

- Dynamic phase approach: The highest projection of a cyclic domain is a phase (Bobaljik and Wurmbrand 2005, 2013, den Dikken 2007, 2012a, b, Bošković To appear, Wurmbrand 2013a, b); relevant here: \([\text{Phase} \ {\{\text{AspP}/\text{PassP}\} \ {\text{vP}}} \ {\text{VP}}]\]

- Phase extension: Following den Dikken (2007), among others, phasehood is extended by head-movement; incorporation of the embedded $v$ extends the embedded $\text{vP}$ phase to the matrix VP and the embedded $\text{vP}$ becomes a spell-out domain [SOD].

- Movement has to go through matrix Spec,VP—anti-reconstruction derived (without ‘agreement domains’; Bobaljik and Wurmbrand 2005)

(11) a. weil er alle Fenster vergessen hat [tOBJ zu schließen]
    ‘since he forgot to close all the windows’ $\forall \rightarrow \text{forget}; \ast\text{forget} \rightarrow \forall$

b. John-wa subeto-no ringo-o tabe-wasure-ta
    ‘John forgot to eat all the apples.’ $\forall \rightarrow \text{forget}; \ast\text{forget} \rightarrow \forall$

3.2 Restructuring as VP+ complementation

Long passive

- Embedded restructuring complement lacks a functional domain (Wurmbrand 2001 et seq.)
- Embedded object is dependent on the voice properties of the matrix predicate

(12) a. dass der Traktor und der Lastwagen zu reparieren versucht wurden
    ‘that they tried to repair the tractor and the truck’

b. Aneuk agam nyan geu-ci (*geu-)peurêksa lê dokto
    ‘The child was tried to be diagnosed by the doctor.’

    [Legate 2012: 501]

c. naqaru.un i t.um.uting ni yumin ku bawaq
    ‘The pigs were finished to be beaten by Yumin.’

    [Chen 2010: 5]
Reasons for the presence of v in restructuring

- Association of embedded predicate with a subject (Chierchia 1984—meaning postulates; can we do better?)
- Voice-marking on the embedded predicate in many languages
- Transitivity mismatches of matrix and embedded predicates
- Difference between default voice and voice matching languages

(13) a. *Ma’a’ñaq i pätgun ha-taitai esti na lepblu Chamorro
   NPL.RL.IN.3SG.FRMLESS-afraid the child 3SG.RL.TR-read this LNK book
   ‘The child is afraid to read this book.’ [Chung 2004: 203; (5a)]

b. *Chināgi dinispensa si Carmen gias Maria Chamorro
   NPL.RL.IN.PASS.try NPL.RL.IN.PASS.forgive DET Carmen OBL Maria
   Lit. ‘Carmen was tried to be forgiven by Maria.’
   ‘Maria tried to forgive Carmen.’ [Chung 2004: 219; (31a)]

c. *Iliniskun-ku bunbun-a tu baliv-un Isbukun Bunun
   WANT.PV-1SG.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]

(14) a. *Tinituhun ha-lalatdi si Dolores i famagu’un Chamorro
   NPL.RL.IN.PASS.begin 3SG.RL.TR-scold Dolores the children
   ‘Dolores began to scold the children’ [Chung 2004: 219; (32a)]

b. *Tinituhun kumati i pätgun Chamorro
   NPL.RL.IN.PASS.begin NPL.RL.IN.cry the child
   ‘The child began to cry.’ [Chung 2004: 219; (32b)]

c. *Ha-hāhassu si Carmen binisita i biha Chamorro
   3SG.RL.TR-think.PROG Carmen NPL.RL.IN.PASS.visit the old.lady
   ‘Carmen is thinking of visiting the old lady.’ [Chung 2004: 222; (37a)]

d. *Kao ha-ayuda man-sineddə’ i famagu’un ni chi’lu-hu? Chamorro
   Q 3SG.RL.TR-help PL.RL.IN-PASS.find the children OBL sibling-1SG
   ‘Did my brother help find the children?’ [Chung 2004: 222; (37b)]

But: restructuring complement lacks a subject and accusative Case

(15) a. Es wurde versucht [PROIMPL.sichIMPL den Fisch mit Streifen vorzustellen]
   It was tried [PROIMPL.SELFIMPL the fish.ACC with stripes to-imagine]
   ‘People tried to imagine what the fish would look like with stripes.’

b. *weil sich der Fisch mit Streifen vorzustellen versucht wurde RI
   since SELF the fish.NOM with stripes to-imagine tried was
   ‘since somebody tried to recall the image of the fish’

c. weil [sich den Fisch mit Streifen vorzustellen] versucht wurde NRI
   since [SELF the fish.ACC with stripes to-imagine] tried was
   ‘since somebody tried to recall the image of the fish’
3.3 Restructuring $v$

- Incorporation and spell-out

(16)

- Restructuring: $v$, $\varphi$ unvalued
- No ACC, no embedded subject ($v$: ___ cannot associate an NP with a theta-role at this point)
- $v$ incorporates into matrix $V$
- phase extension to VP1, edge movement (anti-reconstructions)

PF copy choice: $\{v\}$ $\Rightarrow$ spell-out of $v$ postponed (Chamorro etc.)
$\{v\}$ $\Rightarrow$ default value: Atayal—AV (see below);
German—infinitive; Acehnese—bare $V$

(17) Active matrix predicate

$\Rightarrow$ LF: NP$_1$ is the agent of both matrix and embedded $v$

(18) Passiv matrix predicate

$\Rightarrow$ LF: 1 is the agent of both matrix and embedded $v$
$\Rightarrow$ PF: in voice matching languages both $v$’s spell out as PASSIVE
3.4 Further evidence

\textit{v} incorporation

- Separation of the two verbs as in VP-fronting

(19) \hspace{1cm} [\textit{Zu reparieren}]_{\text{VP}} \textit{wurden} \textit{nur blaue Autos} \textit{vergessen}

\hspace{1cm} ‘They only forgot to repair blue cars.’ [Wurmbrand 2007: 264]

Default voice in Mayrinax Atayal

(20) a. \textit{naqaru.un} \textit{i} \textit{t.um.uting} \textit{ni yumin} \textit{ku} \textit{bawaq} [Chen 2010: 5]

\hspace{1cm} \textit{finish.PV} \textit{LNK} \textit{beat.AV} \textit{beat} \textit{GEN} \textit{Yumin} \textit{NOM} \textit{pig}

\hspace{1cm} Lit. ‘The pigs were finished to be beaten by Yumin.’

\hspace{1cm} ‘Yumin finished beating/killing the pigs.’

b. \textit{m.naqru} \textit{i} \textit{t.um.uting} \textit{cu} \textit{bawaq} \textit{i} \textit{yumin} [Chen 2010: 7]

\hspace{1cm} \textit{AV} \textit{finish} \textit{LNK} \textit{beat.AV} \textit{beat} \textit{ACC} \textit{pig} \textit{NOM} \textit{Yumin}

\hspace{1cm} ‘Yumin is finishing beating/killing pigs.’

c. \textit{*naqaru.un} \textit{i} \textit{tuting.un} \textit{ni} \textit{yumin} \textit{ku} \textit{bawaq} [Chen 2010: 11]

\hspace{1cm} \textit{finish.PV} \textit{LNK} \textit{beat.PV} \textit{GEN} \textit{Yumin} \textit{NOM} \textit{pig}

\hspace{1cm} ‘What did Yumin finish beating/killing? ’

d. \textit{*m.naqru} \textit{i} \textit{tuting.un} \textit{i} \textit{yumin} \textit{cu} \textit{bawaq} [Chen 2010: 11]

\hspace{1cm} \textit{AV} \textit{finish} \textit{LNK} \textit{beat.PV} \textit{NOM} \textit{Yumin} \textit{ACC} \textit{pig}

- Object A’-extraction: only possible if V is marked PV
- Restructuring: object A’-extraction possible, despite AV of embedded V.

(21) a. \textit{nanuan} \textit{ku} \textit{tuting.un} \textit{ni} \textit{yumin} \hspace{1cm} Mayrinax Atayal

\hspace{1cm} \textit{what} \textit{NOM} \textit{beat.PV} \textit{GEN} \textit{Yumin}

\hspace{1cm} ‘What is Yumin beating/killing?’ [Chen 2010: 8]

b. \textit{*nanuan} \textit{ku} \textit{t.uming} \textit{i} \textit{yumin}

\hspace{1cm} \textit{what} \textit{NOM} \textit{beat.AV} \textit{beat} \textit{NOM} \textit{Yumin}

c. \textit{nanuan} \textit{ku} \textit{naqaru.un} \textit{i} \textit{t.um.uting} \textit{ni} \textit{yumin}

\hspace{1cm} \textit{what} \textit{NOM} \textit{finish.PV} \textit{LNK} \textit{beat.AV} \textit{beat} \textit{GEN} \textit{Yumin}

\hspace{1cm} ‘What did Yumin finish beating/killing?’

d. \textit{*nanuan} \textit{ku} \textit{siwal.an} \textit{ni} \textit{tali} \textit{i} \textit{t.um.uting} \textit{i} \textit{yumin}

\hspace{1cm} \textit{what} \textit{NOM} \textit{allow.LV} \textit{GEN} \textit{Tali} \textit{COMP} \textit{beat.AV} \textit{beat} \textit{NOM} \textit{Yumin}

- Clitics: there are no ACC clitics; in simple clauses, object clitics are only possible when they are NOM, which in turn requires that the verb occurs in PV
- In restructuring contexts (with clitics), the lower verb must still occur in AV.
3.5 ‘Passive’ restructuring and retroactive $v$

German let ‘passive’ (with Marcel Pitteroff)

(22) a. *Ich ließ ihn feuern*  
I let him.ACC fire-INF  
‘I let him fire (something).’  
‘I let (someone) fire him.’ ‘He is being fired.’

b. *Ich ließ ihn vom Chef feuern*  
I let him.ACC by.the boss fire  
‘I let him be fired by the boss.’ ‘I let the boss fire him.’

(23)

Restructuring  
$\phi$: valued

\[
\begin{array}{c}
\vP \\
\mapsto \\
\vP \\
\end{array}
\]

$\phi$: val$_1$

(24)

Retroactive infinitives/gerunds—preliminary

(25) a. Your hair needs/wants/requires cutting.  
[Hantson 1984: 95]

b. This matter needs handling carefully by an expert.

(26) a. *Ta kniha potřebuje přeložit (zkušeným překladatelem)*  
that book needs translate.INF (experienced translator.INSTR)  
‘That book needs translating by an experienced translator.’ [Dotlačil & Šimík 2013: (6)]

b. *Ta skladba potřebuje zahrát (??záměrně) velmi pomalu*  
that song needs play.INF (??intentionally) very slowly  
‘It is desirable to play this song intentionally very slowly.’ [D&Š 2013: (23a)]
c. Ta kniha byla čtena (záměrně) velmi pomalu
   that book was read.PASS (intentionally) very slowly
   ‘The book was read intentionally very slowly.’ [D&Š 2013: (23b)]

d. Karel potřebuje učesat
   Karel needs comb.INF
   ‘Karel’s hair needs combing.’ [possibly by Karel] [D&Š 2013: (24a)]

e. Karel byl učesán
   Karel was comb.PASS
   ‘Karel’s hair was combed.’ [Necessarily not by Karel] [D&Š 2013: (24b)]

Speaker variation and mixed agent properties

- Embedded predicate: (23)—ϕ: valued restructuring v
- Object movement (Dotlačil & Šimík 2013); object associates with another theta-role in the matrix predicate (some applicative/possessor/benefactive/source meta theta-role)
- APPL v values embedded v; this allows the association of the ϕ-features with an agent-like interpretation (e.g., allowing an agent-like oblique)
- But: the embedded v is not v: AGENT, and hence is not compatible with properties that are indicative of an agentive v (such as agentive adverbs); and v: APPL does not assign ACC
- needs washed construction: by phrase also controversial (Brasil 2009, Whitman 2010); http://microsyntax.sites.yale.edu/needs-washed.

(27) Raising/Control

• Brazilian Portuguese: ϕ-valued restructuring or embedded expletive v?

(28) a. A Maria deixou a criança vacinar
   The Mary let the child vaccinate
   ‘Mary let the child be vaccinated (by someone else).’ [R. Lacerda, p.c.]

b. A criança vacinou
   The child vaccinated
   ‘The child was vaccinated.’ [R. Lacerda, p.c.]

c. A Maria deixou a criança vacinar *pelo/✔ com o médico novo
   The Mary let the child vaccinate *by.the/✔ with the doctor new
   ‘Mary let the child be vaccinated by the new doctor.’ [R. Lacerda, p.c.]
4. Conclusion and further issues

Not covered

• Different types of passive, middles…
• Directions to pursue: configurations given in section 2.2.2 under Excluded configurations?
• Distribution of possible combinations (e.g., why is the class of predicates that allow an anti-causative/absolute construction in BP larger than in English, why are retroactive complements so restricted? etc. etc.)

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Simple clause | Complex predicate

• Two feature sets for v
• Values determined by lexical properties of v and the syntactic context
• System brings together several (odd) constructions

5. References

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