

# Syntax and Morphology; a Single Computational Engine

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- The atoms that Merge manipulates are not words but much tinier units.
- There is a single component for building structure, and that is syntax.
- There is no independent morphological component (derivational or inflectional or otherwise)
- Current theoretical understanding, and expectations
- Mandarin resultative compounds
- with further excursions into comparative syntax (serial verb constructions (Ewe (serial verbs) English Dutch resultatives))

## Strings of verbs: Mandarin V V 'compounds'

- resultative **la kai** 'pull open' ; **xiao si** 'laugh die' =laugh someone to death
- **tiao wu** lit. jump dance' 'dance'; **tao lun** lit: ask for-discuss = ' discuss'
- V N (verb object compound) **fang jia** 'release-vacation' = 'have vacation'
- Different distributional properties (Thompson, 1973)
  - placement of LE (perfective aspect)
  - position of the potential particle **de** or **bu** (NEG.POT)
  - behavior under reduplication ('casual' interpretation)

	V1V2res	V1V2compound	V N
LE	<b>V1V2-LE</b>	V1V2 LE	V LE N
POT	<b>V1 de V2</b>	V1* <b>de</b> V2	
RED	<b>(V1V1 V2)</b>	V1V2-V1V2	V1 V1 N

# A glimpse at Mandarin resultative V1 V2 'compounds'

Very long tradition of study. (Thompson 1973, Yafeil Li 1990, A.Williams 2005 , Sybesma 1997, Cheng and Huang (1997), Cheng (1994), Zang (2007) Wang (2010) among many many others)

- V1 V2 resultatives: V1 and V2 get pronounced 'close' to each other; (Why call these 'compounds'? )
- Perfective LE follows V1 V2

(1) Ta la kai- le men  
He pull open- PERF door  
He pulled the door open

- object of V1 follows V2/LE.

- Potential 'de' and 'bu' come between V1 and V2.

(2) Ta la- de- kai men  
 He pull- can- open door  
 He can pull the door open

(3) Ta la bu kai men  
 He pull- cannot- open door  
 He cannot open the door

- V2 cannot be independently modified: (Williams 05:25) (or followed by 'ji le' (very) (Thompson, 73) (V1 can be preceded by modifiers : (youdian), "considerably or comparatively" scope over causation)

\* V1 [Adv V2] .

(4) ta za (\*hen) ping- le nakuai rou.  
 3s pound (\*very) flat -PERF that meat  
 ÔS/he pounded that meat (\*very) flat.Ō

(5) ta (youdian/chabuduo)za ping- le nakuai rou

## Ewe serial verbs, Collins 1997

- (6) Me nya ɖevi- ε dzo  
I chase child- DEF leave  
'I chased the child away.'
- (7) Kofi tsɔ ati- ε fo Yao.  
Kofi take stick- DEF hit Yao  
'Kofi took the stick and hit Yao with it.'
- (8) Wo ɖa fufu ɖu.  
they cook fufu eat  
'They cooked fufu and ate it.'

- Mandarin..Huge literature. (largely) lexicalist approaches *not surprising!*. V1 V2 resultatives: compounds. Compounding takes place in morphology presyntactically/lexically; for the syntax, compounds are atomic (X<sub>o</sub>).
- How did the field get there?
- How to understand the distributional properties given current (2010) theoretical understanding?
- ① How can we understand the property of being pronounced 'as a unit' or in each other's vicinity?
- ② Empirical Focus : resultative constructions (Mandarin, Ewe (serial verbs) and English, with some Dutch in the mix)
- ③ How do the distributional properties of these constructions follow in a theory where there is no notion of construction? How to support this analysis independently?

## Words as syntactic atoms. From Past to Present

- Early generative grammar- generative semantics
- Remarks on Nominalizations (1970)  
Lectures on Government and Binding (1981)-'Principles and Parameters'  
Head movement (Koopman, 84; Travis 1984; Baker 85, Baker 88, Pollock 89, Pesetsky 96;
- Minimalist Program (93-95 ); Decompositional approaches  
Kayne (1994, 200, 2003, 2005, 2010) (Cartography (Rizzi 1997, Cinque 1999, 2005)[leading to 2010](#) K and Sz (2000), Koopman (2005); Distributed Morphology Halle and Marantz (1993) Marantz, Embick etc, Nanosyntax, Starke, Pavel Caha 2009, Peter Muriangi 2008),



# Words versus phrases

For excellent discussions see DiSciullo and Williams (1987); Marantz Ealing lectures (2006), and literature cited there

- 1 Intuitive distinction; but is that distinction theoretically relevant? *Historically: taking words to be syntactic atoms was a pretty good research strategy, but this is no longer the case in current stage of the theory (K and Sz (2000)).*
- 2 To the extent there are differences between words and phrases, these need to be explained. (i.e differences cut across syntax/morphology)
- 3 **Modularity**  
Difference in module: atoms are different and computational system is different.  
But: atoms: M and S: LI (heads), categories (f-categories), roots/"lexical" categories(n,v,A,P), bound/free.  
computational system: Merge. satisfy properties of LI ('head'-). Structure reflect the interpretation; Order does not depend on ('narrow') phonological notions. (cf. templatic ordering morpheme ordering) )

## An aside: can phonology determine linear order?

- What is the reason/are the reasons much of syntax has been shifted to Phonology? (narrow syntax vs other syntax); head movement)
- Given strict modularity. What can the role of phonology be in ordering?(LCA)  
Modularity: (re)ordering as a result of phonology can only come about if it is only sensitive to phonological atoms (onset, C V, syllable, foot.. (fun-fucking-tastic).

## The case of Puular

- (Paster, 2005 ):  
affix 1 is ordered closer to the root than affix 2 because of phonological properties:
- sonority scale: (dialect of Puular, Arnott, 1970))  
(t , d, n, r)  
–Cs must not decrease in sonority across morpheme boundaries. (HK: there was an error on the original handout
- But these morphemes also express semantic/syntactic categories; order is determined by the hierarchy. (Cinque 1999, 2005).
- Puular order obeys sonority as well as semantic/ syntactic hierarchy: [root] 3 2 1
- Fuuta Toora (Senegal) — > affix order determined by syntax/semantics, not by phonology. Affix order corresponds to syntactic hierarchical: rest by morphological template).  
3-1-2 order Koopman and Szabolcsi 2000, Koopman 2005, Cinque 2005, Koopman Wolof.
- Conclusion: syntax all the way (affix ordering not head movement, but regular phrasal movement  
K and Sz (2000), K (2005))

## More Background: Linguistics 101: Morphology

- Linguistics 101:  
morpheme: smallest meaningful unit; (bound/free), (category).  
*what about case, agreement, complementizers, linkers, functional Ps, thematic vowels, infinitival endings, and the like?*
- level 1 affixes: inner affixes: 'lexical causatives' 'lexical passives' 'root affixes' lots of idiosyncratic meanings
- level 2 affixes: outer affixes (combine with stems (or roots) categories). compositional semantics, 'productive'
- phrasal affixes ('s), Japanese causative 'sase', (cf crosslinguistic variability (Case affixes (N or P)) etc)
- clitics
- 'derivational' morphology (derives new categories N, V, A etc)  
'inflectional' morphology (derives new f-categories (Plural, T etc))
- Do 'words' result from head movement' (no)?

## Linguistics 101 continued

- Words have phonological integrity. 'stable molecules' (cf. cyclic spell out and phases: words are phases)
- Words are semantically complex. "Words are complex ideas" , a few sound bites span large semantic (=syntactic )structures.

## (Alleged) differences..

- **lexical integrity** : Subparts of words cannot be manipulated by syntactic rules
- **Productivity** (syntax is productive, morphology is (semi-) productive)
- **Listedness**: (only) words are listed.  
Listeness scale: a scale from all(smallest) to a few(largest) roots and morphemes, morphologically complex words, compounds, phrases, sentences)
- **Blocking**: existing words block other words (*gloriosity* blocks *\*gloriousness*)
- **headedness**: words are right headed (English). (cf French headedness cuts across (appendix))

- (9) Lexical integrity: Subparts of words cannot be manipulated by syntactic rules.
- a. Subparts of words are opaque for anaphoric relations
  - b. Subparts of words cannot (or can often not) be manipulated by syntactic rules
  - c. There are certain heads which cannot appear within words. ((11))

## lexical integrity (*continued*)

- (10) Anaphoric islandhood (Postal 1969 CLS, Sproat 1993 in Kaisse and Hargus (eds.))
- a. I got a divorce from Sally and I'll get one from Louise too. (Postal)
  - b. \*I divorced Sally and I'll get one from Louise too.
  - c. Max works for conservation but I'm against it. (Postal)
  - d. \*Max is a conservationist but I'm against it.
  - e. \*John wants to be a fireman because he likes putting them out. (Sproat)
  - f. Harry is from New York but I wouldn't want to open a store there. (Postal)
  - g. \*Harry is a New Yorker but I wouldn't want to open a store there. (Postal)
- (11)
- a. \*[ the [how angry-ness]
  - b. \*[ to [the-baby]sit]



# Theoretical background-current 2010

## "Minimalism" (+ Cartography)

- 1 Atoms (LI) ("Lexical Item")
- 2 Merge (External Merge. First Merge), Internal Merge (Move, Second Merge); Bare Phrase structure (Antisymmetry)

What are the atoms (LIs)? What are their properties?

- 1 not words(traditional grammars), lexicalist theories; nor fully inflected lexical items (current Minimalist practice).
- 2 but smaller units.. decompositional approaches (how small: Distributed Morphology, 'Nanosyntax' (Tromsøe), Koopman and Szabolcsi (2000), Koopman (2005), Kayne 1994, 2003, 2005, 2010; Cinque (1999), (2005)

## Theoretical assumptions..(continued)

- ① Words and phrases differ in output size; not w.r.t. atoms nor where or how they are build
- ② Locality; (Relativized) Minimality. (cyclic spell-out)
- ③ **Single Computational Engine Hypothesis:**  
**There is a single computational engine for building structure.**
  - ① No structure building in either pre- or post-syntactic components.
  - ② syntax is strictly derivational and antisymmetric, there is no difference between narrow syntax and other syntax.

## Theoretical assumptions *continued.*

- (12) Phonology is accessed cyclically (syntactic structures are transferred to PF), syntactic structures encode the meaning directly;
- a. **Syntactic atoms can be silent, i.e. lack any phonological expression**, (LI can be a tonal, segmental, segmental and tonal, segmental etc; bound (requiring a merged element, or free).
  - b. Mapping of phonological material to syntax is not one to one, but one to many.
  - c. At transfer, the highest copy in a c-command chain is subject to phonological insertion.
  - d. (+Principles regulating distribution of silent elements (Koopman 1996, 2000) Kayne 2003), Emonds (1987) (2000))

## Theoretical assumptions

- Properties of LIs drive the derivation ("lexical properties"). (Projection Principle, 1981). What are the lexical properties?

Principle of Locality of Selection: Sportiche 1998, 2005

Properties of LIs must be satisfied strictly locally (under strict sisterhood.)

Merge (External merge (base generation) and Internal merge (Move) are the only available mechanisms leading to satisfaction of lexical properties, i.e. to convergence.

- If Locality of Selection is correct, far-reaching analytical consequences: considerably more derivational depth, tons of movement( second merge); no Agree/extended projection for checking local relations!

## Sportiche: Locality of Selection

- If reconstruction, then movement. (Chomsky 1995).
- If no reconstruction, then no movement

- (13) a. In 1986, no integer had been proven to falsify Fermat's theorem (Sportiche 2005) From Sportiche 2005: 83, 84:
- b. In 1986, had been proven to no integer falsify Fermat's theorem

(14) Merged Structure:

a. No .....prove ...*[embeddedclause* integer falsify...]

Surface:

[No integer] had been proven [ to ~~integer~~ falsify] ..

## Locality of Selection

- Why? D... [N V ]  
Usually it is assumed [D V], but instead [N V].  
Systematically examine cases of selectional dependencies we find, and do not find: Vs select for Ns, V \*D, V do not (or rarely) select for number, etc
- This makes sense if Vs always select for N, not for Ds.
- Locality of Selection forces DPs to be derived constituents. (it forces N to combine with V) and D to combine with V and N.
- DPs are derived constituents
- PPs CPs etc are derived constituents (Kayne 2000, 2003)
- ->Considerably greater derivational depth

## When nothing (much) happens...

- Elements will end up being pronounced when selectional properties of the LIs present in the structure. I.e. The smaller the structures, the closer to the selector (or the trace of the selector).
- An example from Dutch complex predicates (N V)

- (15)
- a. dat hij (\*een) adem haal-t  
that he (\*a) air takes  
that he breathes.
- b. dat hij niet meer adem (\*meer) haal-t<sub>Neg >ADV > ..N</sub>  
that he not more breath (more) takes  
that he no longer breathes
- c. dat hij geen adem meer ~~adem~~ haalt  
that he no breath longer ~~breath~~ takes  
(geen=NEG and Indef)

- Internal Merge forced by properties of indefinite een: not by

# No Tinkering

- NO TINKERING (NO TAMPERING, Chomsky 2005)
- All properties reduce to independent properties. Best possible case: reduce all properties of form to the way constituent structure is build, (independent properties of Merge, properties of LI, distribution of silent and pronounced material, locality, semantic properties)



# Expectations

How can strings get pronounced next to each other:

- (16) Strings can get pronounced next to each other because of:
- a. external merge (yielding head complement order) (c-command), or spec head (second merge)
  - b. internal merge (second merge (of a small piece of structure))(traditional head movement, or Spec head, both non distinct in bare phrase structure)):
  - c. by accident: pieces of structure happen to be spelled within phrases that end up in close proximity: they are 'glued' together by some other (silent) element. (Mandarin resultatives)

Head complement/spec head relations abound:

- (17) Bill 'll've been being criticized
- (18) Inchoatives: (V to v movement, "spanning" of v V)
- The ice melted, the sky darkened
  - The sun melted the ice, the painter darkened the sky
  - Bill's book ('s), linkers etc.

Ntelitheos (2006, 57c)) Malagasy:

- (19) ny [f- [if- an- p- i- anara- ]n]'  
D NML- REC- AV- AGENTNML- AV- study- CRC/LNK  
ny ankizy ny tena gasy.  
D children D language Malagasy  
Lit: the children's causing each other to become those who  
study Malagasy'  
The children's teaching of Malagasy to each other'

Any examples of elements that get 'accidentally' pronounced together? M

## Re: Mandarin resultative V1 V2 'compounds'

(Thompson 1973, Yafeil Li 1990, A.Williams 2005 , Sybesma 1997, Cheng and Huang (1997), Cheng (1994), Zang (2007) Wang (2010) among many many others)

- V1 V2 resultatives: V1 and V2 get pronounced 'close' to each other;
- Perfective LE follows V1 V2

(20) Ta la kai- le men  
He pull open- PERF door  
He pulled the door open

- object of V1 follows V2/LE (and is interpreted as selected by V2. (V1 does not have to take an object)

- Potential 'de' and 'bu' come between V1 and V2.

(21) Ta la- de- kai men  
 He pull- can- open door  
 He can pull the door open

(22) Ta la bu kai men  
 He pull- cannot- open door  
 He cannot open the door

- V2 cannot be independently modified: (Williams 05:25) (or followed by 'ji le' (very) (Thompson, 73)

\* V1 [Adv V2] or \*V1 V2 DP ji le

(23) ta za (\*hen) ping- le nakuai rou (\*ji le).  
 3s pound (\*very) flat -PERF that meat (\*ji le)  
 S/he pounded that meat (\*very) flat.'

# Interpretations

Yafei Li (1990):

- (24) Taotao zhui- lei- le Youyou le  
Taotao chase- tired- asp Youyou LE
- Taotao chased Youyou and as a result Youyou got tired.
  - (Taotao chased Youyou and as a result Taotao got tired.)
  - Youyou chase Taotao and as a result Youyou got tired.**
  - \*Youyou chased Taotao and as a result Taotao got tired.

- V1V2 alternate with phrasal resultatives (Huang, Zhang 2008)
- I will ignore status and analysis of b; (relation to verb doubling) (cf (25))
- a. and c: Surface object must be the argument of V2. Rules out d. (surface object does not have to be an argument of V1)
- ambiguity and representation.

- (25) Taotao **zhui** Youyou **zhui** lei le. =(25) b.  
Taotao chase Youyou chase tire LE  
Taotao got tired from chasing Youyou

# Mandarin 'compounds' distributional properties

- Different distributional properties (Thompson, 1973)
  - placement of LE (perfective aspect)
  - position of the potential particle **de** or **bu** (NEG.POT)
  - behavior under reduplication ('casual' interpretation)

	V1V2res	V1V2compound	V N
LE	<b>V1V2-LE</b>	V1V2 LE	V LE N
POT	<b>V1 de V2</b>	V1* <b>de</b> V2	
RED	<b>(V1V1 V2)</b>	V1V2-V1V2	V1 V1 N

Most analyses in the Literature: cannot be available given current assumptions.

- no formation of compounds in the lexicon, presyntactically.
- no modal *de/bu* lowering, or special placement rules (no lowering in general)
- no percolation mechanism to pass on arguments
- No specific linking rules for thematic inversion (Yafei Li (1990) Mandarin V1V2 compounds)
- Languages cannot vary as to whether Vs introduce arguments or not (Williams 2005).
- Mandarin *chase* cannot vary from English *chase* in its basic structural make-up; it can vary w.r.t. pronunciation (which part the overt form spans)

## Building up the analysis from cratch

Yafei Li (1990):

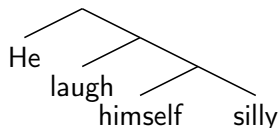
(26) Taotao zhui- lei- le Youyou le  
Taotao chase- tired- asp Youyou LE

- a. Taotao chased Youyou and as a result Youyou got tired.
- b. Taotao chased Youyou and as a result Taotao got tired.
- c. Youyou chase Taotao and as a result Youyou got tired.
- d. ~~\*Youyou chased Taotao and as a result Taotao got tired~~

- Starting from c: ignoring b for reasons of time..
- Recall: Vs select for N (D is outside) (D>CAUSE). The smallest structure lacks any functional material



## 'Standard" accounts for resultatives



- v c-commands the resultative
- more complex; further structure

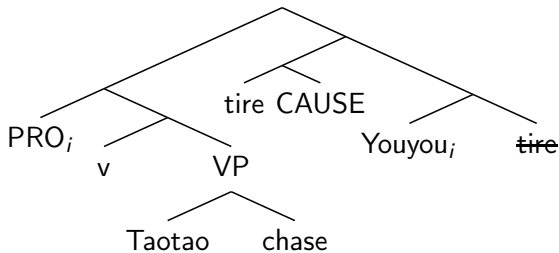
## A bi-eventive structure

- (27) Taotao zhui- lei- le Youyou le (=16)  
Taotao chase- tire- asp Youyou LE
- Taotao chased Youyou and as a result Youyou got tired.
  - Taotao chased Youyou and as a result Taotao got tired.
  - Youyou chase Taotao and as a result Youyou got tired

- (CAUSE > BECOME > RES(tire) (INIT > PROCESS > RES)
- *tire* reemerges with CAUSE, CAUSE is silent.. (V to v).
- *tire* cannot be modified (for the same reason as English \*(very redd(en)), red(en very))
- What merges as the subject of CAUSE: an **event**; **vP (c)** or **VP(a)**(=[Taotao's chasing Youyou] tired Youyou out.

## Initial Merge structure (no Ds, no degree etc)

- (28) Taotao zhui- lei- le Youyou le  
Taotao chase- tire- asp Youyou LE  
=c. Youyou chase Taotao and as a result Youyou got tired

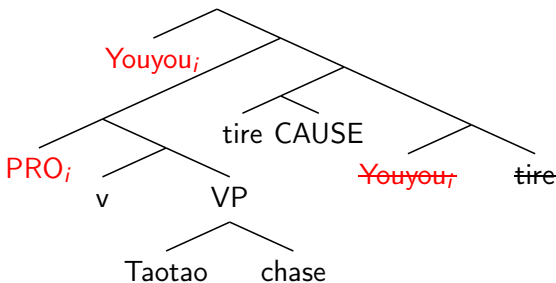


- At this level, everything is small, constituents need to be grown (NOT root combining with DP (cf Harley 2007))
- Vs select for N (D is outside) (D > CAUSE)
- *tire* cannot be modified for the same reason as English \*(very redd(en)) (2 alternatives, DEG > CAUSE)

## Merge D with CAUSE)

- D are merged higher than CAUSE. (reconstruction). Youyou to D.
- Hallman (2004): S S O S O O

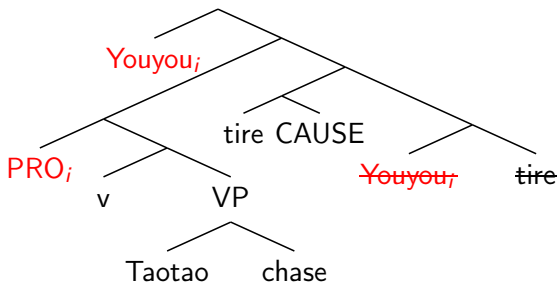
N to D yields:



## Merge D with CAUSE)

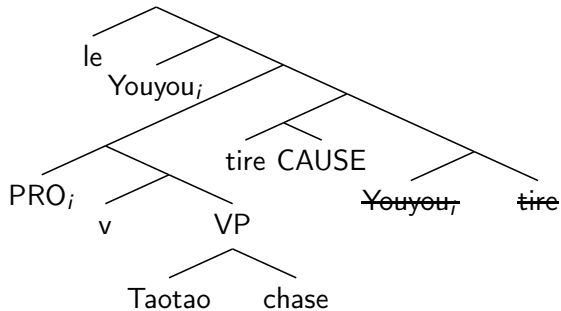
- D are merged higher than CAUSE. (reconstruction). Youyou to D.
- Hallman (2004): S S O S O O

N to D yields:

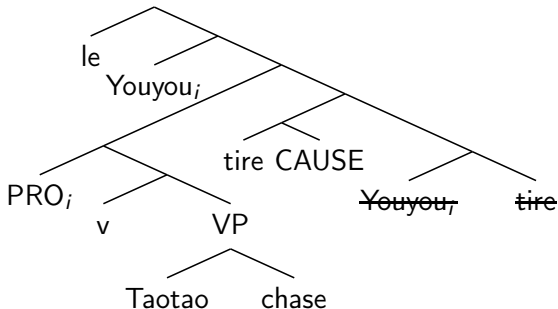


- *zhui- lei* 'chase tire' = compound, glued together by silent CAUSE: chase is merged inside the subject of CAUSE and does not c-command CAUSE.
- object c-commands PRO and argument of *zhui* 'tire'.
- Next: merge perfective *le*.

## Merge LE ; attract CAUSE



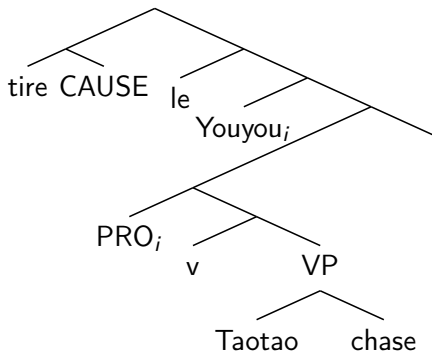
## Merge LE ; attract CAUSE



- What moves to Perfective LE? (Cause) (classical head movement configuration! interpretation achieved locally)
- -- > Merge remnant CAUSE segment (2 options, lower Cause segment or CausP, no need for head movement)
- in English: this structure can only converge as ([Chasing Taotao] tired Youyou..) Different options in Chinese, because of the absence of -ing, infinitival morphology, tense morphology etc). vs no higher than little v)

# CAUSE to PERF

Lower CAUSE segment:

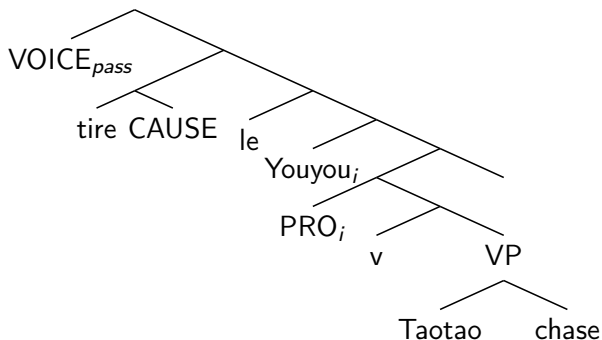


- How does Taotao map onto D and the subject position? (no D within initial small clause subject)
- option 1. A movement (wh- in situ) \*Minimality (PRO intervenes)
- option 2. A' movement of Taotao to topic-like position. (wh-in-situ does not behave as topic)



## MERGE VOICE<sub>pass</sub>

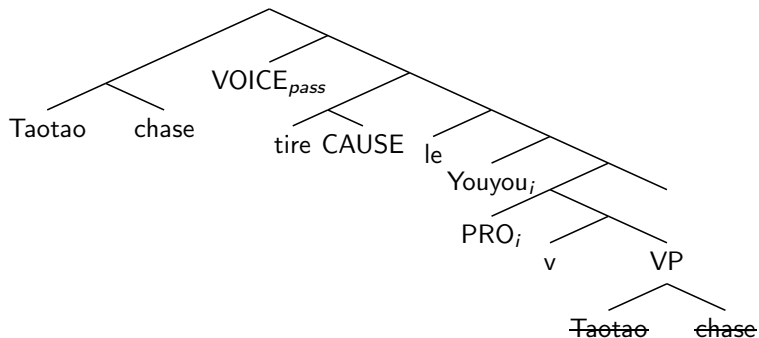
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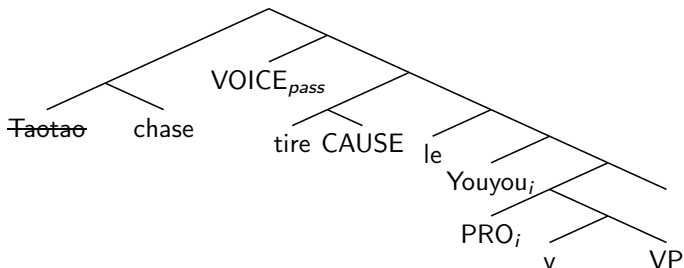
- Attract big VP (Smuggling, Collins 2005), Koopman (2008), Ishizuka (2010)..
- Tree shown here: PASS > PERF; (also possible based on Cinque (1999): PERF > PASS.)

## (Second) Merge big VP

*continued..*



## Taotao to Subject: Minimality respected



*zhui- lei* 'chase tire' does not form a constituent

V1 does not c-command V2!

PRO cannot control (or be made overt). Too low for purposives.. (volition is higher), If PRO would move to D (a precondition for being pronounced or occur in a by-phrase)→ Minimality violation or condition C violation.

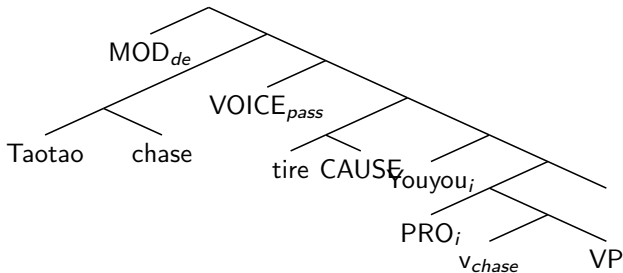
## On the presence of non active voice

Imperatives can only get the object resultative reading, i.e. the non active derivation cannot be made into an imperative. (\* be chased by Bill!) (thanks to Zighuo Xie). (not predicted by say Yafei Li's analysis)

- (29)    Qu, zhui lei yaoyao.  
         Go, chase tire Yaoyao  
         Go chase Yaoyao tired!  
         \*Go, get chased tired by Yao!

# The placement of the positive Potential *de* and Negative Potential *bu*: raising of sentential subject to subject!

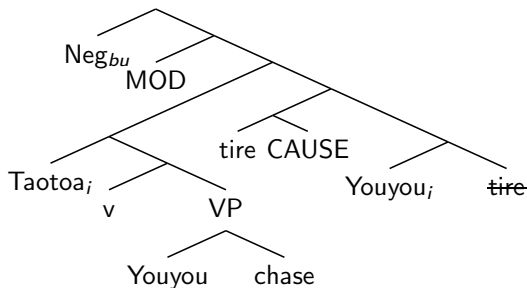
Merge silent MOD *de* (*glossing over incompatibility with Perf LE is incompatible here*)



## Negative Potential with regular object resultative: V1 bu V2 DP

Merge Neg(bu) with MOD (with VOICE/CAUSE);. (raising to subject of MOD and bu(neg) will bring V1 to the left of NEG. (subject are always to the left of bu).

- (30) [Taotao **zui**(chase) ~~Youyou~~] bu [~~PRO~~ ~~zui~~(chase) ~~Youyou~~]  
 MOD [  $t_v P$  tire.CAUSE Youyou



## When the subject of CAUSE is VP; MERGE vP/VOICE<sub>active</sub>

- (31) Taotao zhui- lei- le Youyou le (=16)  
Taotao chase- tired- asp Youyou LE
- a. Taotao chased Youyou and as a result Youyou got tired.
  - b. Youyou chase Taotao and as a result Youyou got tired

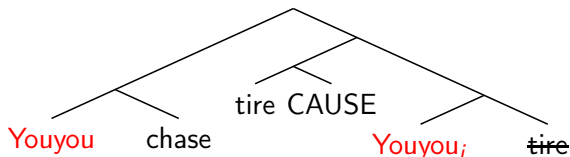
# When the subject of CAUSE is VP; MERGE vP/VOICE<sub>active</sub>

(31) Taotao zhui- lei- le Youyou le (=16)

Taotao chase- tired- asp Youyou LE

a. Taotao chased Youyou and as a result Youyou got tired.

b. Youyou chase Taotao and as a result Youyou got tired





## Potential and Negative Potential

Silent Modal merges with Voice(middle) or active) (which merges with Cause)

(32) Taotao zhui- bu-lei Youyou le

Taotao chase- bu- tire Youyou LE

a. Taotao cannot chase Youyou and as a result gets Youyou tired.

Taotao's chasing cannot tire Youyou  
(Taotao cannot get chased tired by Youyou)

b. Youyou cannot chase Taotao and as a result Youyou gets tired

(with doubling:

(33) Taotao zhui youyou zhui bu lei

Taotao chase Youyou chase NEG.POT tire

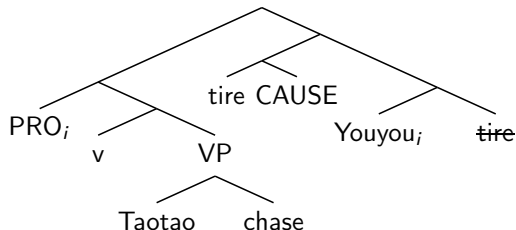
Taotao cannot chased Youyou and as a result Taotao gets tired=b.

# Taking stock

(34)

Taotao zhui- lei- le Youyou le

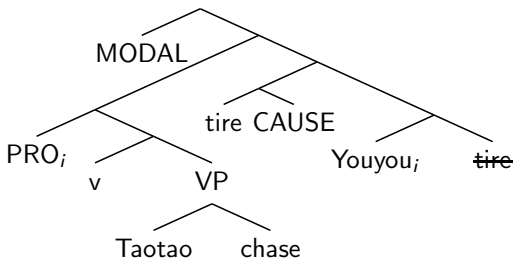
=c. Youyou chase Taotao and as a result Youyou got tired



- *tire* remerges with (silent) CAUSE (there is a way to get around this)
- *tire* cannot be modified (for the same reason as English \*(very redd(en)))
- The event (vP) or VP merges as the subject of CAUSE (vP or VP?)

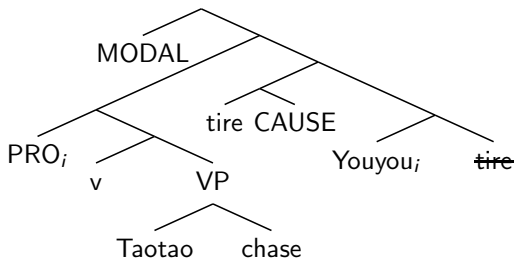
continued..

- D merges higher than Cause: N to D movement
- (If vP); the object of V1 is smuggled past vP/PRO, due to silent non active VOICE in Mandarin ).
- Merge LE; *le* follows V2 because *le* attracts CAUSE, as expected.
- Silent modal (Potential) and Neg > Modal can merge with Perf/ CAUSE. Raising V1 Neg MOD V2. (simplified)



*continued..*

- Silent modal (Potential) and Neg > Modal can merge with CAUSE. Raising V1 Neg MOD V2. (simplified)



## other cases: VP as subject

- Recall: K/D higher than Cause
- agent introduced separate from Cause ((active) Voice) (Pylkkanen 2008)

(35) Taotao zhui- lei- le Youyou le (Y.Li, 1990)

Taotao chase- tired- asp Youyou LE

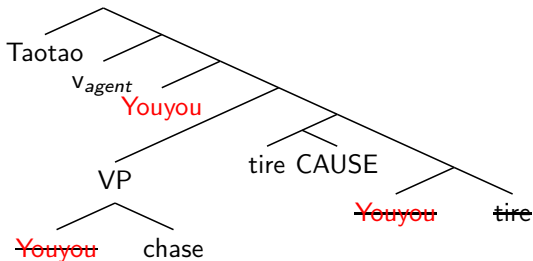
- a. Taotao chased Youyou and as a result Youyou got tired.
- b. Taotao chased Youyou and as a result Taotao got tired.
- c. (Youyou chase Taotao and as a result Youyou got tired.)

## other cases: VP as subject

- Recall: K/D higher than Cause
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(35) Taotao zhui- lei- le Youyou le (Y.Li, 1990)  
Taotao chase- tired- asp Youyou LE

- Taotao chased Youyou and as a result Youyou got tired.
- Taotao chased Youyou and as a result Taotao got tired.
- (Youyou chase Taotao and as a result Youyou got tired.)



## V1 V2 as output of syntax..

- (36) Strings can get pronounced next to each other because of:
- a. external merge (yielding head complement order) (c-command), or spec head
  - b. internal merge (second merge (of a small piece of structure)(traditional head movement, or Spec head, both non distinct in bare phrase structure)):
  - c. **by accident: pieces of structure happen to be spelled within phrases that end up in close proximity: they are 'glued' together by some other (silent) element.**

Nothing special needs to be said about V1 V2: they are not constituents at any level of derivation.

# Variability

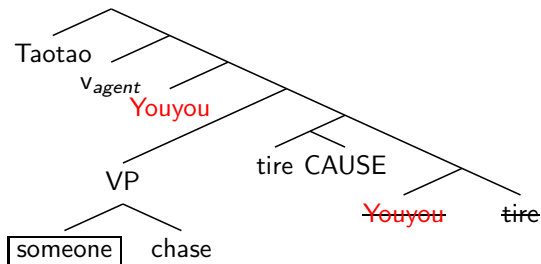
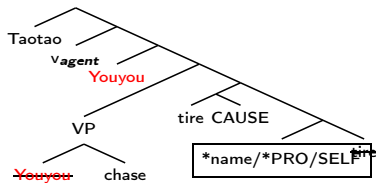
## Variability (within Mandarin/Chinese/crosslinguistically)

- What CAUSE can merge with. (CAUSE (Process result))
- What can merge as the subject of CAUSE (event: vP, VP, and "CP", 'size of constituent'); the more material in the constituent, the further away from cause the event will be. (constituents are build up)
- Interaction with other properties; Properties of Voice(active–nonactive);
- Interaction with individual LIs, silent or not;
- Properties of Case: one D/ structural case for CAUSE domain), binding, PRO etc



## More possibilities

T got tired chasing Youyou



## English resultatives and scope of *re-*

- What about English resultatives? small clause analyses [V1 CAUSE [ BECOME ] RES] (V1 c-commands small clause)
- English *re* must attach to a change of state predicate (\*relaugh) or to a verb of creation/incremental theme. (they rebaked the bake.)
- (Edwin) Williams (does syntax exhaust all of morphology?) (Williams 2007)

- (37) a. John repainted the desk white  
the desk was not white before (re does not scope over white)

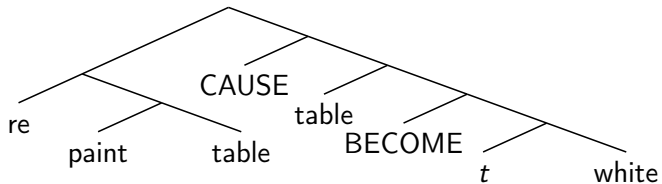
re does not c-command white

- b. John rewhitened the desk  
the desk was white before

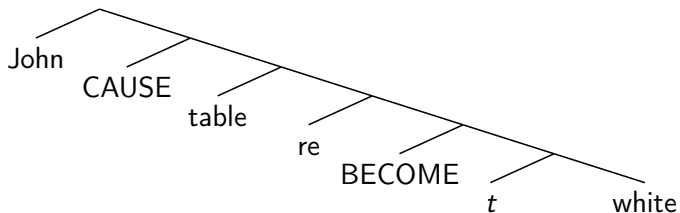
re > white

Problem for analyses that assume that the same merge order underlies these, with the well-supported conclusion that *re-* merges

(38)



(39)



## Conclusion

Given current (2010) theoretical understanding: single computational engine, no tinkering and locality of selection, decomposition.

- 1 shown that the expectations of the current theory ( how to understand the property of being pronounced in each other's vicinity or next to each other as one)
- 2 V1 V2 compounds. Not lexical units, not syntactic constituents; They happen to be close to each other because of the initial merged structure and the syntactic derivations. Nothing special needs to be said in their regard.
- 3 How do the distributional properties of these constructions follow in a theory where there is no notion of construction? Sketched a (broad) syntactic account, which should form a good basis for microcomparative and macrocomparative syntax
- 4 Applied the Mandarin analysis to English resultatives; showed that merging re with the subject event yields the right scope properties

# Conclusion

- ① Applied the Mandarin analysis partially to English resultatives; showed that merging re with the subject event yields the right scope properties w.r. to paint.
- ② I did not however give a full account (i.e. maybe white be be both within or outside the resultative structure to start with) Dutch white however incorporates whereas manners do not.