

Nominals and the Syntax Prosody Interface

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Slides



Slides available at: <http://mikebarrie.com/handouts.html>



- 1 Introduction
- 2 Background
 - Phases
 - Prosodic Structure
 - Match Theory
- 3 Reduced Nominal Expressions
- 4 Case Studies
 - Korean
 - Mongolian
 - Blackfoot
 - Other Studies
- 5 Unanswered Questions

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- Joint research with many participants



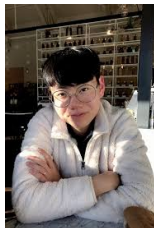
Kyumin Kim



Heeryun Chung



Moonhyun Sung



Soohwan Lee



Sihun Jung



Jungu Kang

- Modularity: The modules of grammar are discrete and do not make reference to one another.
- Early Structuralist view: Phonology feeds morphology, which feeds syntax (Bloomfield, 1933)
- Bloomfield still influential, most recent reprinting in 2005.
- This view persisted until Distributed Morphology (Halle and Marantz, 1993).
- Some impossible rules:
 - Verbs that begin with a fricative raise to T; others remain in *v*.
 - word-final devoicing happens on subjunctive verb forms.
 - existential closure takes place on bare NPs that contain a nasal consonant.
- Y-model of grammar ensures modularity (Chomsky, 1995).

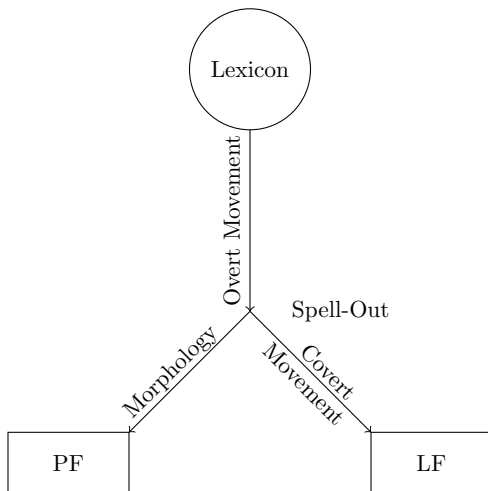


Figure: Y-Model of Syntax

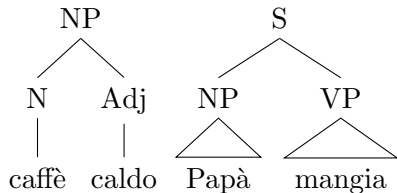
■ Syntax-Phonology Interface

- evidence for interaction between syntax and phonology (Nespor and Vogel, 1986; Selkirk, 1984)
- *radoppiamento sintattico* (RS) in Italian (Florence dialect used in Nespor and Vogel (1986))

- (1) a. caffè caldo
/kafɛ kaldo/
[kafɛ k:aldo]
coffee hot
'hot coffee'
- b. tè freddo
/tɛ fred:o/
[tɛ f:red:o]
tea cold
'cold tea'

- RS - sensitive to syntactic environment

(2) Papà mangia (no RS)
father eats
'Father eats.'



Mandarin 3rd Tone Sandhi

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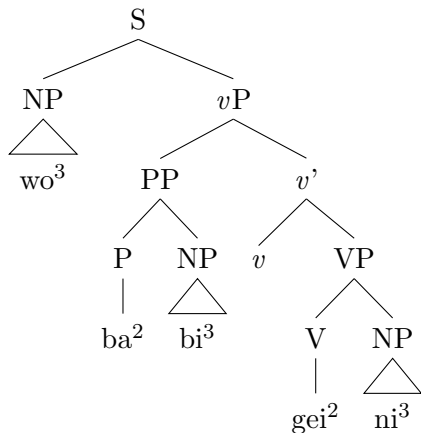
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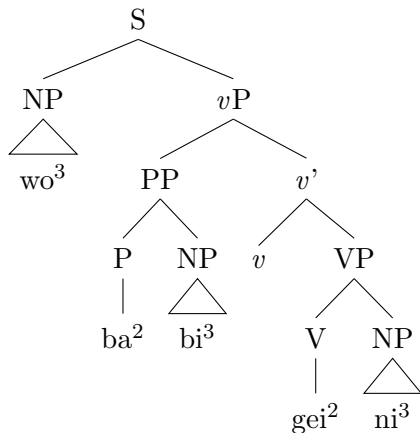
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(3) wo ba bi gei ni
I BA pen give you
3 3 3 3 3 (underlying)
3 2 3 2 3 (surface tones)
'I give the pen to you.'

Mandarin 3rd Tone Sandhi



Mandarin 3rd Tone Sandhi



- T3 sandhi restricted to maximal projections

- Phonology, Syntax, Semantics - all assumed to be independent

Summary

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Summary

- Phonology, Syntax, Semantics - all assumed to be independent
- Ample evidence of a syntax-phonology interface
- What kind of model will account for the observed interactions between syntax and phonology?

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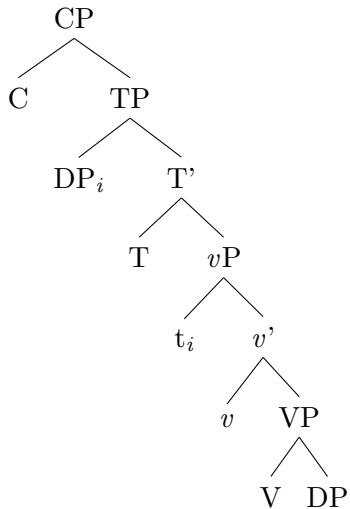
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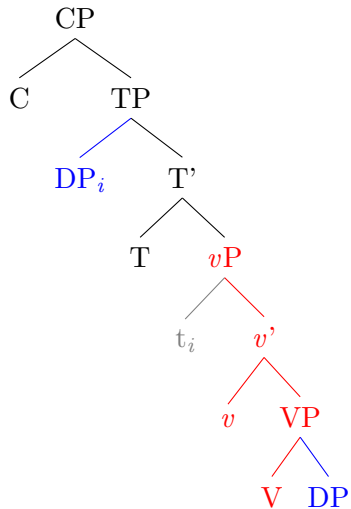
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- Each phase is sent to the interfaces (PF and LF) for externalization (sound/sign structure) and interpretation (meaning).



Phases



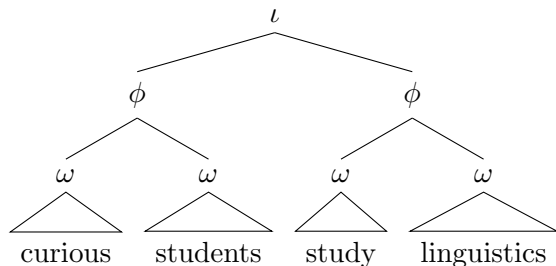
- prosodic hierarchy (Nespor, 1999; Nespor and Vogel, 1986; Selkirk, 1984, 1986)

- (4) Utterance Phrase (ν)
Intonational Phrase (ι)
Phonological Phrase (ϕ)
Clitic Group (κ)
Phonological Word (ω)
Foot (F)
Syllable (σ)
Mora (μ)

Prosodic Hierarchy

- will deal with just subset here

- (5) Intonational Phrase (ι)
Phonological Phrase (ϕ)
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Match Theory

- indirect relationship between syntactic structure and prosodic structure
- violable constraints (Selkirk, 2009, 2011; Elfner, 2015).

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- violable constraints (Selkirk, 2009, 2011; Elfner, 2015).
- constraints as follows:
 - ① CP - ι (but see Ishihara (2022))
 - ② XP - ϕ
 - ③ X - ω

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- growing consensus - prosodic domains are defined by phases (Kratzer and Selkirk, 2007; Newell, 2008; Newell and Piggott, 2014; Newell and Scheer, 2017; Weber, 2020, 2021; Compton and Pittman, 2010)

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- will investigate this hypothesis here

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- **Differential Object Marking (DOM)**: case marking on noun varies with respect to a variety of properties (Bossong, 1991; Aissen, 2003; Fábregas, 2013; López, 2012, *inter alia*):
 - humanness
 - animacy
 - specificity
 - definiteness
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- usual trend: animate nouns trigger DOM while inanimate nouns do not
- **Pseudo Noun Incorporation (PNI)**: noun (typically the object) is bare or has reduced morphology (Massam, 2001; Dayal, 2011).
- semantic properties that resemble canonical noun incorporation (Mithun, 1984; Dayal, 2015).

■ DOM:

- (6) a. Encontré un problema.
I found a problem
'I found a problem.'
- b. Encontré a un superviviente.
I found OBJ a problem
'I found a survivor.'

- DOM:
- Spanish (Fábregas, 2013)

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■ PNI:

- (7) a. Takafaga tūmau nī e ia e tau ika
hunt always EMPH ERG he ABS PL fish
'He is always fishing.'
- b. Takafaga ika tūmau nī a ia
hunt fish always EMPH ABS he
'He is always fishing.'

- PNI:
- Niuean (Massam, 2001)

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- Prosodic domains identified by:

(8) **u^Lli^H nwuna^L-nun^H Yenga-lul miwe-hay-yo**
our older sister-TOP Younga-ACC hate-do.INF-POLITE
'My older sister hates Younga.'

Background on Korean

- Prosodic domains identified by:
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- (9) a. kulim
picture [kuurim]
'picture'
- b. motun kulim
every picture [modun guurim]
'every picture'

Nominalization and Case

- Case patterns in Korean nominalizations (Chung, 2019; Barrie and Chung, 2019)

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- [S-NOM O-ACC V]-NLZR
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- *[S-NOM O V]-NLZR

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- *[S-NOM O V]-NLZR

- (10) a. Yenghuy-ka yenghwa-lul po-ki-lul
 Younghui-NOM film-ACC see-NLZR-ACC
 ‘Younghui seeing the film’
- b. Yenghuy-uy yenghwa po-ki-lul
 Younghui-GEN film see-NLZR-ACC
 ‘Younghui’s seeing of the film’

Korean Nominal Structure

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- underlined portion - test for lenis stop voicing
- boldface portion - test for THLH contour

■ The comparison of VOT type

- NOM-*ki* vs. GEN-*ki*

VOT	NOM- <i>ki</i>	GEN- <i>ki</i>
Positive	30	7
Negative	6	25
Zero	6	10
Total	42	42

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- KP_{OBJ} and verb - act as two separate prosodic units

Pitch: NOM-*ki* vs. GEN-*ki*

- comparison of pitch patterns

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- KP + V - contour reset on V
- *n*P + V - one domain for THLH contour

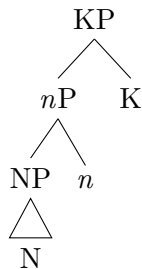
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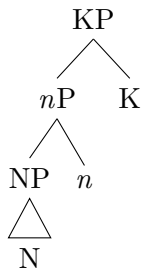
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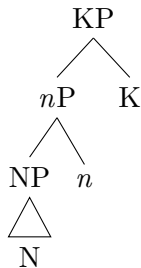
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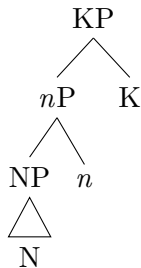
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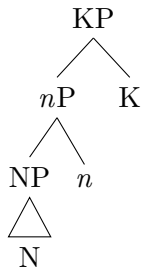
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- No HM - N-*n*-K is a phrase $\rightarrow \phi$
- N to K HM - N-*n*-K is a head $\rightarrow \omega$

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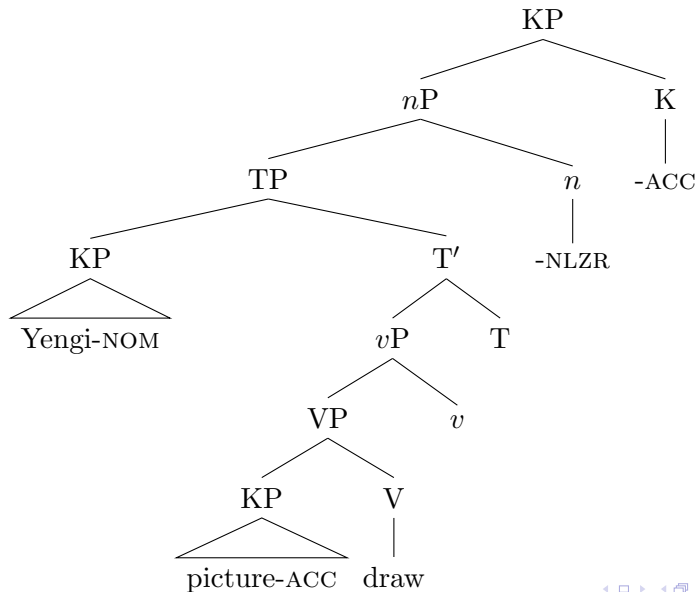
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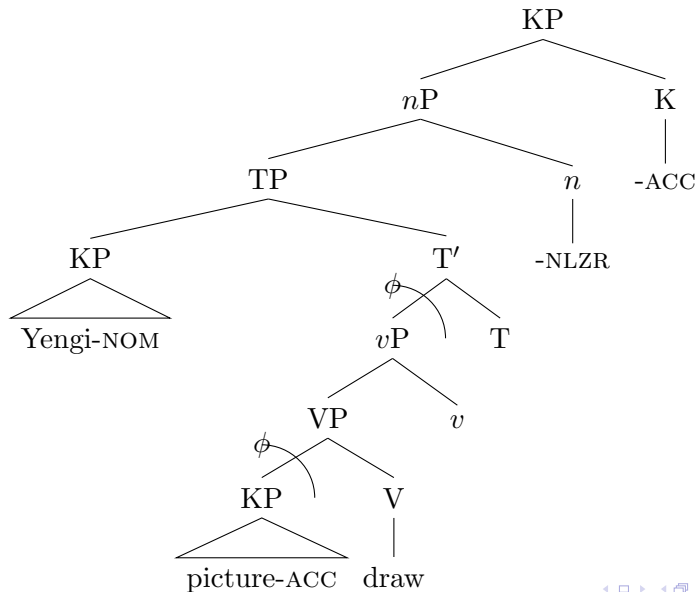
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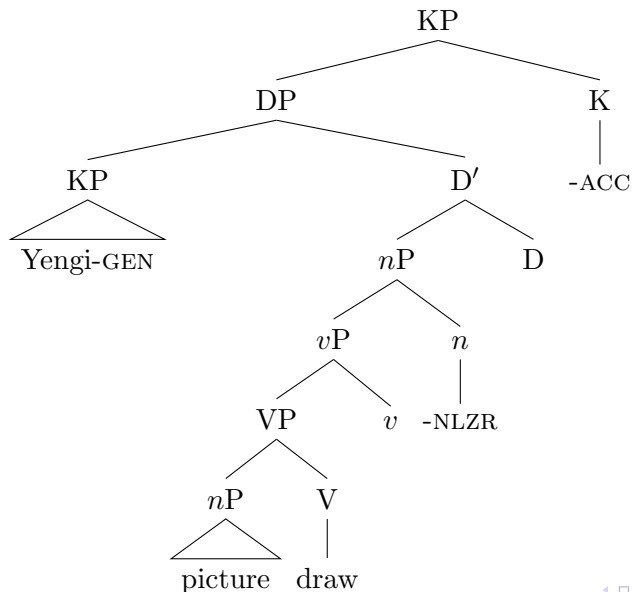
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- Phases map to prosodic domains:
- nP maps to ω
- KP and vP map to ϕ
- No need to consider head movement
- Proposed structures:

Discussion of Korean

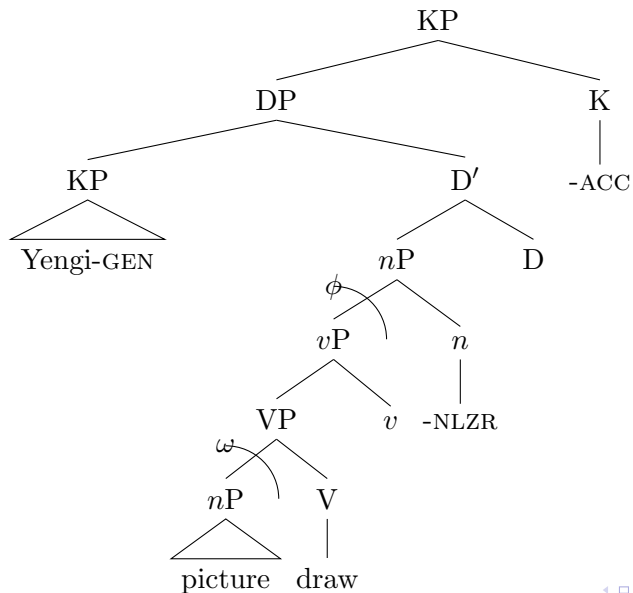


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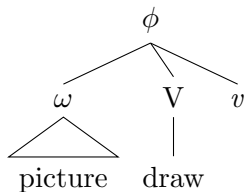
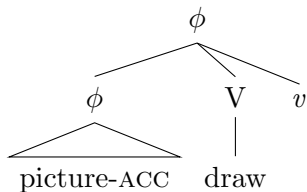




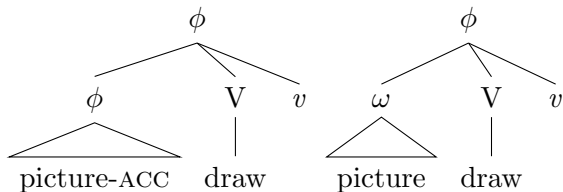
Discussion of Korean



Korean - Summary

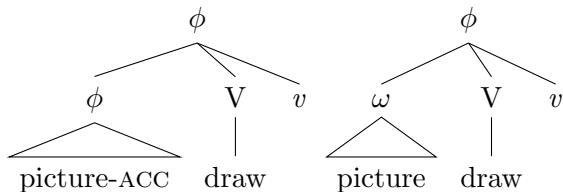


Korean - Summary



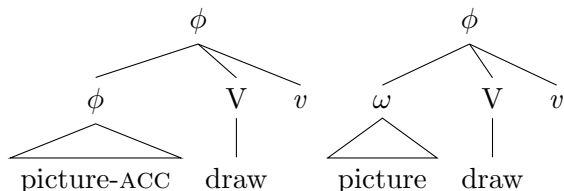
- lenis stop voicing cannot cross a ϕ boundary

Korean - Summary



- lenis stop voicing cannot cross a ϕ boundary
- ϕ is the domain for THLH contours

Korean - Summary



- lenis stop voicing cannot cross a ϕ boundary
- ϕ is the domain for THLH contours
- Prosodic categories correspond to phases

DOM and PNI in Mongolian

- Differential Object Marking (DOM) and Pseudo Noun Incorporation (PNI) in Mongolian studied most extensively by Guntsetseg (2016)
- animacy, definiteness, and specificity play a strong role in DOM
- portion of the variation found (Guntsetseg, 2016, p.78)

- (13)
- a. Bi ene oxin-*(yg) xar-san
I this girl-ACC see-PST
'I saw this girl.'
- b. Bi neg oxin-(yg) xar-san
I a girl-ACC see-PST
'I saw a girl.'
- c. Bi oxin-(*yg) xar-san
I girl-ACC see-PST
'I saw a girl.'

DOM and PNI in Mongolian

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I yesterday book read-PST
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- discuss the difference between the obligatorily caseless examples, (13-c) and PNI, above

Testing DOM and PNI in Mongolian

- Prior work with Jungu Kang (Barrie and Kang, 2022)

Testing DOM and PNI in Mongolian

- Prior work with Jungu Kang (Barrie and Kang, 2022)
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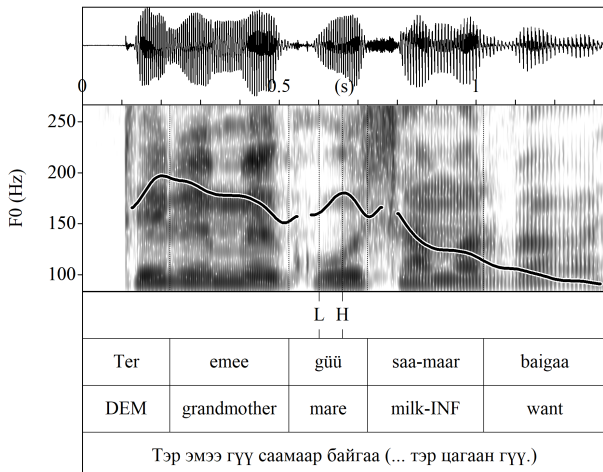
- (15) a. Bi guu saa-maar baina ...ali ch guu hamagui.
I mare milk-INF want ...any mare will do
'I want to milk a mare...any mare will do.' (PNI)

Testing DOM and PNI in Mongolian

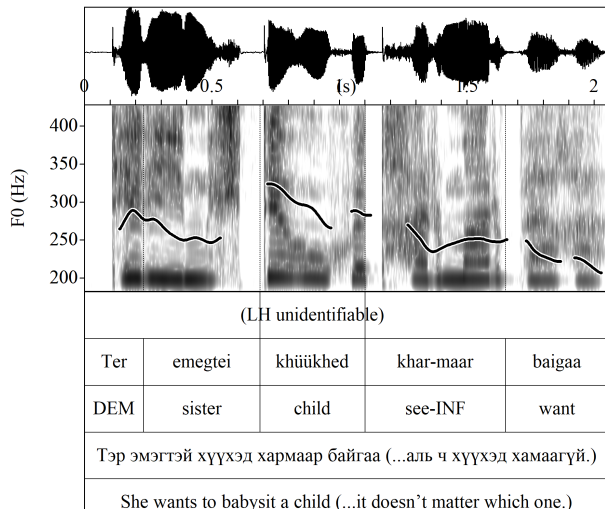
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- (15)
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- b. Bi guu saa-maar baina ...ter tsagaan guu.
I mare milk-INF want ...that white mare
'I want to milk a mare...that white mare.' (DOM)

- initial LH contour found on full objects and bare objects with wide scope (DOM)



- PNI objects (diagnosed by narrow scope) lack initial LH contour



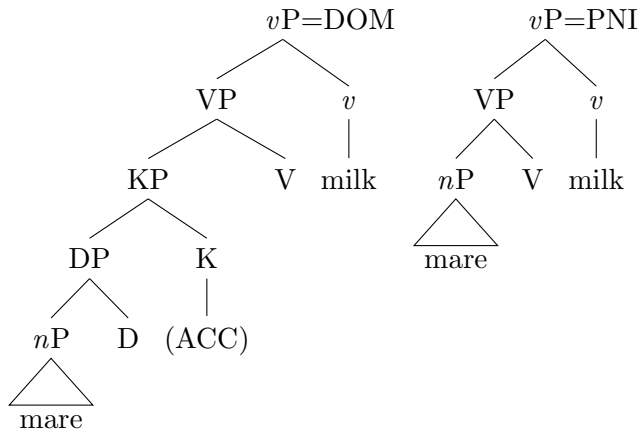
- Mongolian prosody: LH contour is related to the prosodic word, ω (Karlsson, 2014; Svantesson et al., 2005; Janhunen, 2012)

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- additional prosodic evidence for this distinction

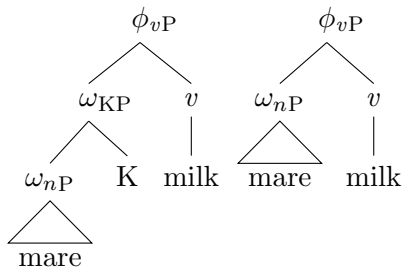
Mongolian - Syntactic Structures



Mongolian - Prosodic Structures

(16) Phase/Prosody Mappings for Mongolian

- a. $vP - \phi$
- b. $KP - \omega$
- c. $nP - \omega$



- Key points

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- KP *with or without* segmental material has LH contour
- nP does not
- See Barrie and Kang (2022) for full analysis

■ Blackfoot (Algonquian)



Blackfoot

- Blackfoot (Algonquian)
- extensive study by Weber (2020, 2021)



Blackfoot

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- Evidence that CP and *v*P correspond to prosodic domains



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- Evidence that CP and *v*P correspond to prosodic domains
- No evidence for TP as a prosodic domain



- Evidence for KP and *nP* as prosodic domains Barrie (2014); Barrie and Kim (2021)

(17) Animacy agreement in Blackfoot (Bliss, 2018, ex.3(b,c))

- a. Náíhkiitatsiiwa omi pi'kssíí
na-ihkiit-at-yii-wa om-yi pi'kssii-yi
EVID-bake-TA-DIR-PROX DEM-SG.OBV chicken-SG.OBV
'S/he baked that chicken.'
- b. Náíhkiitatooma omi napayíni
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- Agreement with animacy of object

- Bliss (2018) analyzes morphosyntactically impoverished objects as PNI

(18) Blackfoot

- a. Náyiiisoyiiwa anni óta'si
na-yiis-o-yii-wa ann-yi w-ot'as-yi
EVID-feed-TA-DIR-PROX DEM-SG.OBV 3-horse-SG.OBV
'He fed his horse.' (TA = transitive, animate object)
- b. Náyisakiwa ponokáómitaa
na-yiis-aki-wa ponokaomitaa
EVID-feed-AI-PROX horse
'He fed a horse/horses.' (AI = animate subject,
intransitive)

■ Bliss - older speakers

- (19) a. Nitsíipommaki amopístaan matónnii
nit-ii-ipomm-aki amopistaan-wa matónnii
I-IC-transfer-AI bundle-SG.PROX yesterday
'I transferred a bundle yesterday.'
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Blackfoot PNI - older versus younger

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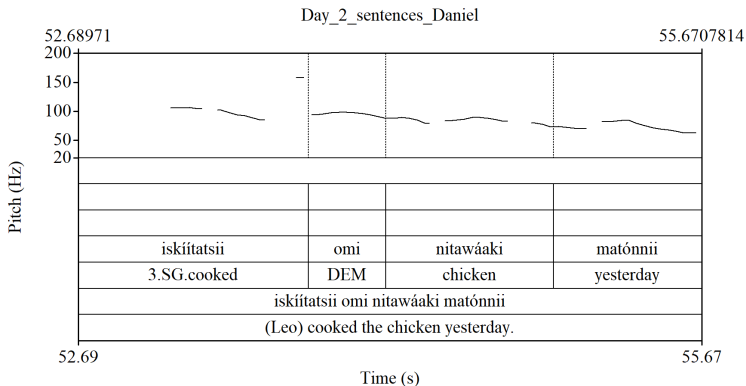
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- PNI object can appear dislocated from verb

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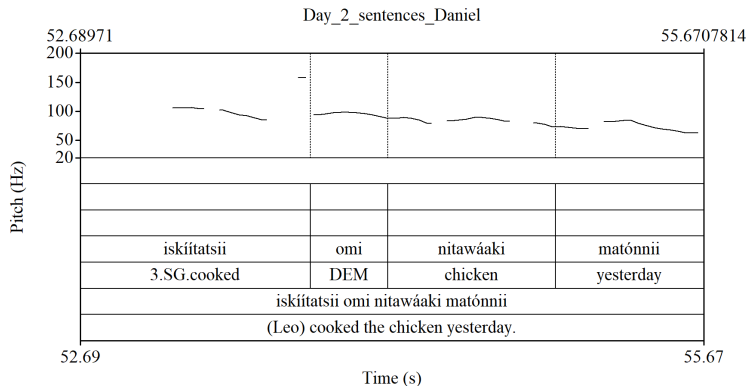
Prosody of Blackfoot PNI

- vowel devoicing at the end of a prosodic domain



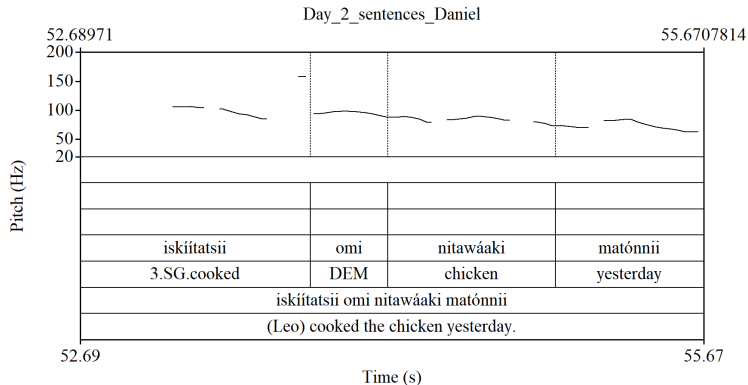
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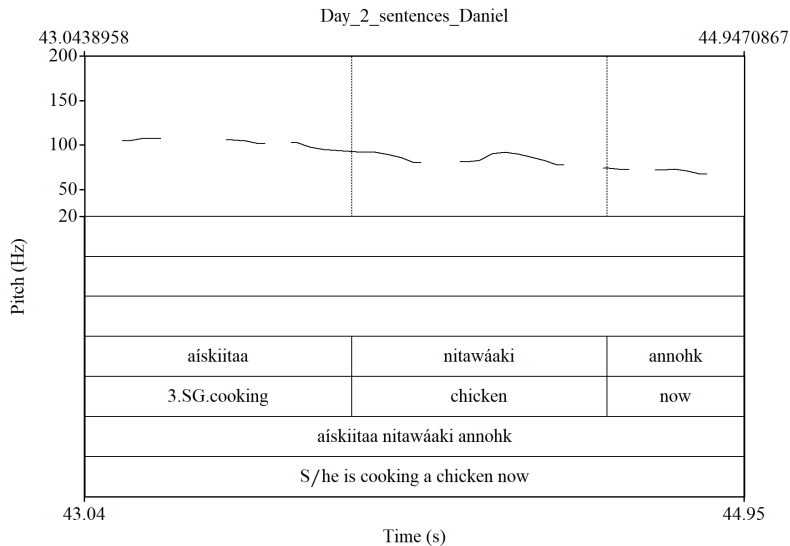


Prosody of Blackfoot PNI

- vowel devoicing at the end of a prosodic domain
- Slight verb-final devoicing with full KP object
- No verb-final devoicing with PNI object



Prosody of Blackfoot PNI

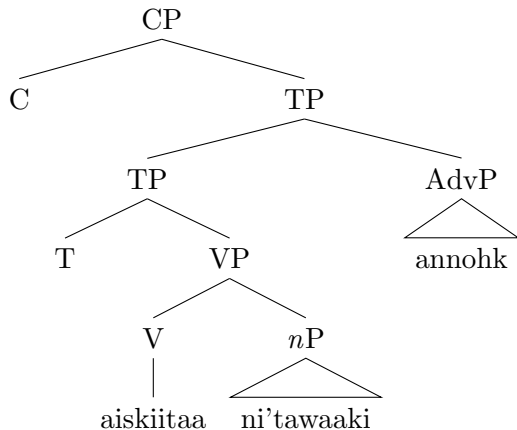


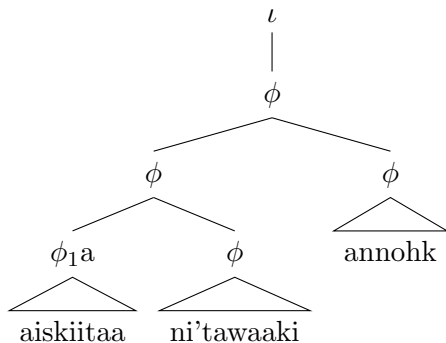
Blackfoot Analysis

	Older speakers Bliss (2018)	Younger speaker Barrie and Kim (2021)
lack of DEM	yes	yes
intransitive agr	yes	yes
low scope	yes	yes
strict adjacency	yes	no
prosodic boundary	not tested	not with PNI

Blackfoot - Analysis

- (20) aiskiitaa ni'tawaaki annohk
is.cooking chicken now
'He is cooking chicken now.'

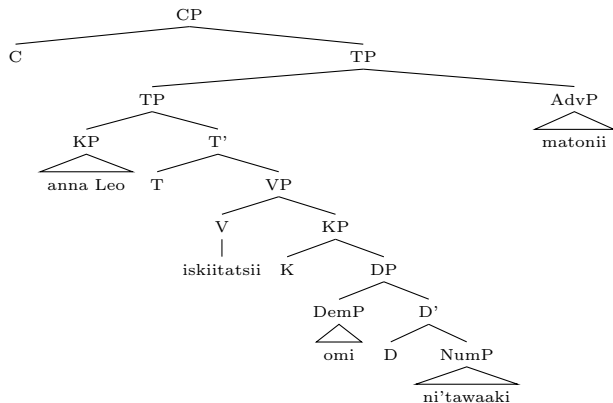




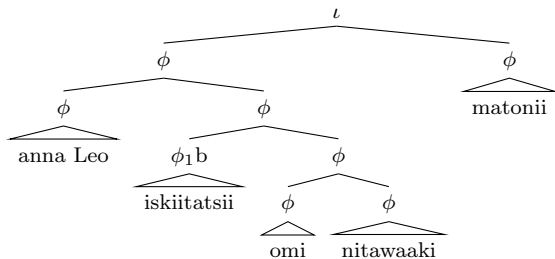
- Match Theory - all XPs map to ϕ

Blackfoot - Analysis

- (21) ana Leo iskiitatsii omi ni'tawaaki annohk
DEM Leo cooked DEM chicken yesterday
'Leo cooked chicken yesterday.'



■ corresponding Match Theory tree



- Both ϕ_{1a} and ϕ_{1b} are minimal ϕ 's

Blackfoot - Analysis

- Both ϕ_{1a} and ϕ_{1b} are minimal ϕ 's
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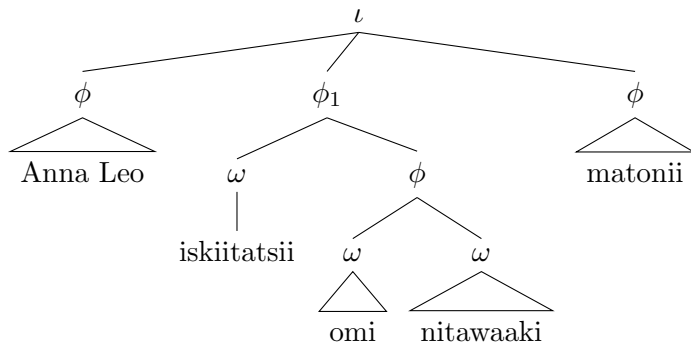
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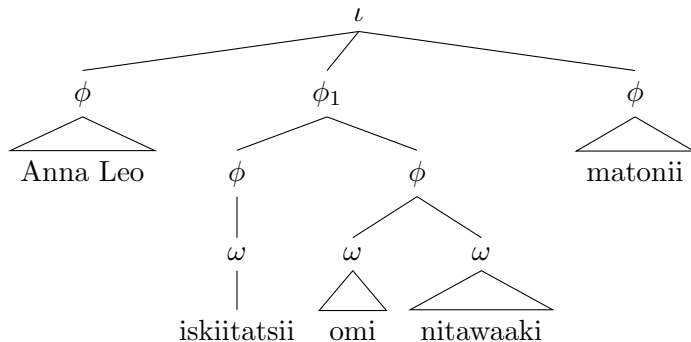
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- cannot relate all XPs to ϕ

- Assume following MATCHPHASE
 - Match ι to CP
 - Match ϕ to VoiP and KP
 - Match ω to n P, DemP, v P
- final-devoicing at right edge of ϕ
- full object - KP
- PNI object - n P/NumP
- properties with numerals not discussed here
- Windsor (2017) argues that the verbal complex is ϕ - complex structure likely phrasal
- see Weber (2020) for in depth discussion
- DemP is a phase - Windsor (2017), also Leu (2015) for evidence that demonstratives have an extended projection



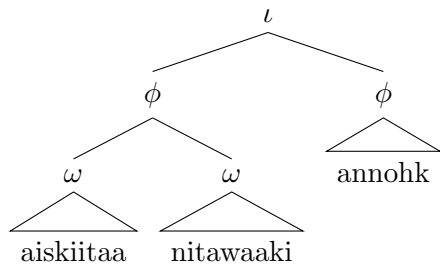
- violates STRONGSTART

- restructured as follows



- ϕ boundary between V and KP object
- devoicing on V

- PNI structure



- no ϕ boundary between V and PNI object
- no devoicing on V

■ Inuktitut

- **Inuktitut**
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- $\iota > \phi > \omega$ - no evidence for ϕ

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- Irish (below) - strong evidence for TP as a prosodic domain

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Outstanding Issues

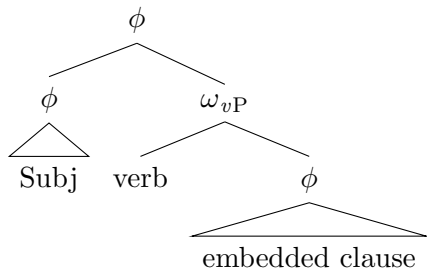
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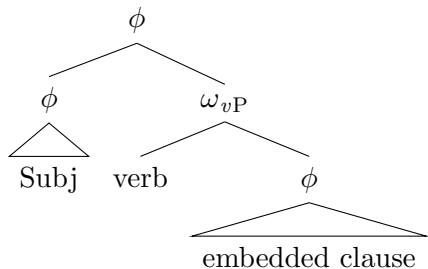
Embedded Clauses

- say vP corresponds to ω and CP corresponds to ϕ



Embedded Clauses

- say vP corresponds to ω and CP corresponds to ϕ
- ϕ contained within ω ???



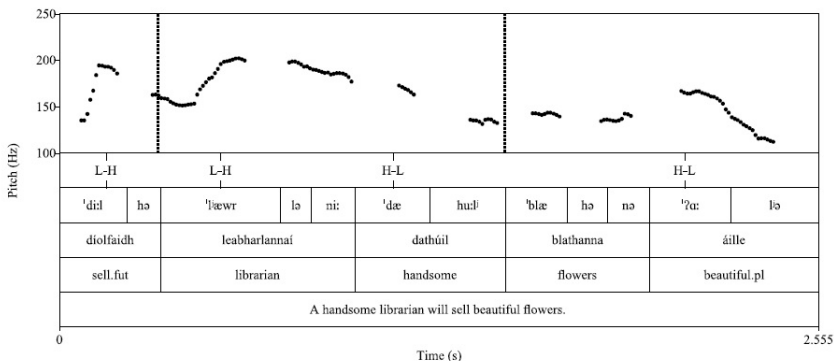
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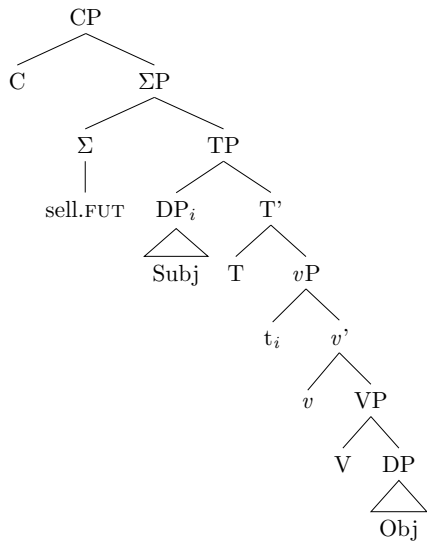
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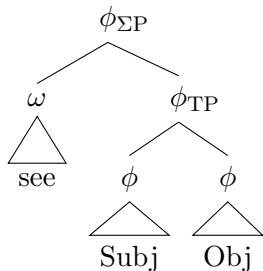
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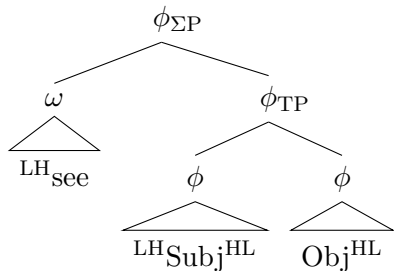
Irish - Conventional Match Theory

- CP - ι
- XP - ϕ
- X - ω



Irish - Conventional Match Theory

- HL at right edge of every ϕ
- LH at left edge of every non-minimal ϕ



Irish - a reinterpretation?

- Phase sliding/extension (Gallego, 2010; den Dikken, 2007)

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- Binariness - a constraint that requires prosodic structure to be binary

Irish - a reinterpretation?

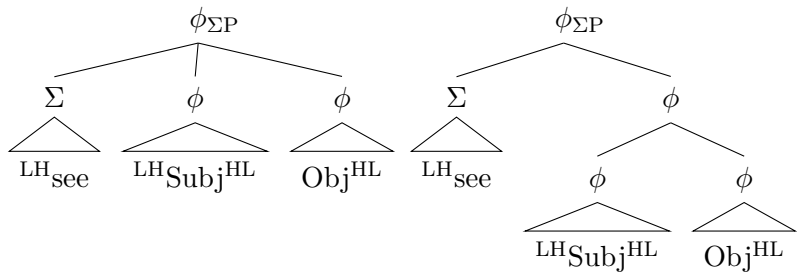


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- Cross-linguistic variation as to which phase corresponds to which prosodic category

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