

Noun incorporation in Chukchi: ν P at the interface

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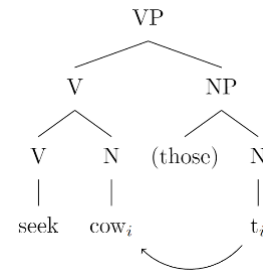
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1. Introduction

- Two alternatives for analysis of incorporation:
 - ♦ head movement (Baker 1988, et seq.) or phrasal movement (Barrie, Mathieu 2012, 2016)
noun incorporation and compounding
 - ♦ base generation (Van Geenhoven 1998, Massam 2001)
pseudo noun incorporation and differential object marking

- Head movement analysis was developed to account for the following facts:

- ♦ not more than a noun root incorporates (head adjunction)
- ♦ only themes/DOs incorporate (UTAH & Head Movement Constraint)
- ♦ stranding of possessors and other elements



- **Today's goal:** we will look at argument-structure alternations achieved via incorporation in Chukchi (Chukotko-Kamchatkan) and argue for a base-generation account
 - ♦ incorporated noun is nP/dP
 - ♦ ordering constraints on multiple argument incorporation and adjunct incorporation
 - ♦ raising to absolutive is subject to locality constraints (Deal 2013)

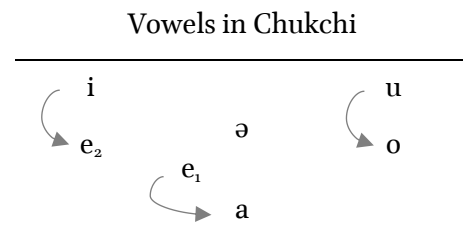
Proposal:

ν P/VoiceP is pronounced as one phonological word if all arguments in the complement of ν /Voice are small nominals devoid of D

- Left aside: phasal (Chomsky 2000, 2001) vs. non-phasal (Keine 2017) status of ν P/VoiceP

2. Criteria for incorporation

- Vowel harmony:
 - ♦ all vowels in a phonological word belong to the same set
 - ♦ both roots and affixes can trigger vowel change.



- Change in transitivity:
 - ♦ ergative case on the transitive subject → absolutive case on the intransitive subject
 - ♦ incorporated noun is stripped of case and number morphology
 - ♦ transitive agreement with both subject and object → intransitive agreement with the subject
- Number-neutrality and obligatory narrow scope

- (1) a. $\gamma\text{əm-nan t}\text{ə-}\mathbb{H}\text{u-ne-t qora-t}$
 I-ERG 1SG.S/A-see-3SG.O-PL reindeer-ABS.PL
 ‘I saw reindeer.’
- b. $\gamma\text{əm t}\text{ə-qaa-}\mathbb{H}\text{o-}\gamma\text{?a-k}$
 I.ABS.SG 1SG.S/A-reindeer.INC-see-TH-1SG.S
 ‘I saw (one or more) reindeer.’

3. Incorporated noun: *nP/dP*

- Incorporated noun can be a nominalized verb, surfacing with a nominalizer

- (2) a. $\eta\text{əto-}\gamma\text{əry}\text{ə-n ye-}\mathbb{H}\text{u-}\mathbb{H}\text{in}$ b. $\gamma\text{a-}\eta\text{əto-}\gamma\text{əry}\text{ə-}\mathbb{H}\text{o-}\mathbb{H}\text{in}$
 go.out-NMZ-ABS.SG PF-see-PF.3SG PF-go.out-NMZ-see-3SG
 ‘S/he found an exit.’ ‘S/he found an exit.’

- Incorporated noun can host direct modification adjectives (Cinque 2010) and stranding is banned

- (3) a. $\text{maj}\eta\text{ə-}\mathbb{H}\text{ətt}\mathbb{H}\text{ə-n-qametwa-k-w}\mathbb{H}\text{-e}$ b. $*\text{n}\text{ə-mej}\eta\text{-qin(-et) }\mathbb{H}\text{ətt}\mathbb{H}\text{ə-n-qametwa-k-w}\mathbb{H}\text{-e}$
 big-dog-TR-eat-VB-TH-2/3SG.S ST-big-ST.3SG(-PL) dog-TR-eat-VB-TH-2/3SG.S
 ‘S/he fed big dog(s).’ Intended: ‘S/he fed big dog(s).’

- Incorporated noun cannot host numerals, demonstratives, or possessors, which also cannot be stranded (see Appendix)

- (4) a. $*\text{ə}\mathbb{H}\text{ə}\gamma\text{ə-}\mathbb{H}\text{ətt}\mathbb{H}\text{ə-n}\text{-qametwa-k-w}\mathbb{H}\text{-e}$ b. $*\text{ə}\mathbb{H}\text{ə}\gamma\text{-in }\mathbb{H}\text{ətt}\mathbb{H}\text{ə-n}\text{-qametwa-k-w}\mathbb{H}\text{-e}$
 father-dog-TR-eat-VB-TH-2/3SG.S father-GEN dog-TR-eat-VB-TH-2/3SG.S
 Intended: ‘S/he fed father’s dogs’. Intended: ‘S/he fed father’s dogs’.

- Pronouns, demonstratives and proper names cannot be incorporated (see Appendix)

➤ More than a noun root can be incorporated (*nP*) and stranding is banned

4. Arguing for base generation

4.1. Incorporation into a stem

- Unaccusative subjects can be incorporated and unergative ones cannot (Polinsky 1990)

- (5) a. *kojŋə-n sim-et-γʔ-i* (6) a. *ekək nə-miysir-et-qin*
 cup-ABS.SG break-VB-TH-2/3SG.S son.ABS.SG ST-work-VB-ST.3SG
 ‘A cup broke.’ ‘The son works.’
 b. *kojŋə-sem-at-γʔ-e* b. **n-ekke-miysir-et-qin*
 cup-break-VB-TH-2/3SG.S ST-son-work-VB-ST.3SG
 ‘His/her cup broke.’ [unaccusative] Intended: ‘His/her son works.’ [unergative]

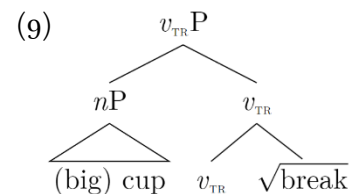
- When a transitivizing prefix *rə-/n-* is added, incorporated object appears to the left of it

- (7) a. *wasja-na kojŋə-n rə-sim-ew-nin*
 Vasja-AN.ERG cup-ABS.SG TR-break-VB-3SG>3SG
 b. *wasja kojŋə-n sem-ak-wʔ-e*
 Vasja-ABS.SG cup-TR-break-VB-TH-2/3SG.S
 ‘Vasja broke a cup.’ [unaccusative → transitive]
- (8) a. *γəm-nan n-ine-n miysir-ew-iyəm panra-t*
 I-ERG ST-SAP-TR-work-VB-1SG reindeer.leg.skin-ABS.PL
 b. *γəm nə-panra-n meysir-aw-eyəm*
 I.ABS.SG ST-reindeer.leg.skin-TR-work-VB-1SG
 ‘I treat/work on reindeer leg skins.’ [unergative → transitive]

- Transitivizer appears between incorporated DO and verbal root:

- DOs are not complements of roots, unlike (Harley 2014)

- Base generation: *nP* appears next to the head that introduces it



4.2. Locality constraints in raising to absolutive

- When DO is incorporated, another participant (possessor, beneficiary, or location) must get absolutive

- (10) a. *ətłəy-e ekk-in wəłə pəne-nin*
 father-ERG son-GEN knife.ABS.SG sharpen-3SG>3SG

b. ətɬəy-e ekək wəɬa-mna-nen
 father-ERG son.ABS.SG knife-sharpen-3SG>3SG
 ‘Father sharpened his son’s knife.’ [possessor raising]

- Beneficiary/IO blocks possessor raising

(11) a. ətɬəy-e ekk-in wəɬə pəne-nin enaraɬ-etə
 father-ERG son-GEN knife.ABS.SG sharpen-3SG>3SG neighbor-DAT
 b. *ətɬəy-e ekkək wəɬa-mna-nen enaraɬ-etə
 father-ERG son-ABS.SG knife-sharpen-3SG>3SG neighbor-DAT
 ‘Father sharpened son’s knife for the neighbor.’

➤ Raising to absolutive is blocked by a higher argument

4.3. Incorporation into verbs with two internal arguments

- Verbs with two internal arguments allow incorporation of both arguments but impose a restriction on the order of incorporation

(12) a. ŋewəsqet-e kuke-ŋə mimɬ-e jərɬ-en-nin
 girl-ERG pot-ABS.SG water-INS content-VB-3SG.A>3SG.O
 b. ŋewəsqet kuke-mimɬə-jərɬ-et-γɬ-i
 girl.ABS.SG pot-water-content-VB-TH-2/3SG.S
 c. *ŋewəsqet mimɬə-kuke-jərɬ-et-γɬ-i
 girl.ABS.SG water-pot-content-VB-TH-2/3SG.S
 ‘The girl filled the pot with water.’

- If only one object is incorporated, it is the one that appears closer to the verb in double incorporation

(13) a. ŋewəsqet-e mimɬə-jərɬ-en-nin kuke-ŋə
 girl-ERG water-content-VB-3SG.A>3SG.O pot-ABS.SG
 b. *ŋewəsqet kuke-jərɬ-et-γɬ-i mimɬ-e
 girl.ABS.SG pot-content-VB-TH-2/3SG.S water-INS
 c. *ŋewəsqet-e kuke-jərɬ-en-nin miməɬ
 girl-ERG pot-content-VB-3SG.A>3SG.O water.ABS.SG
 ‘The girl filled the pot with water.’

➤ Order of incorporation reflects the order of merger. Not only DO/Theme incorporates.

4.4. Adjunct incorporation

- Low adjuncts can be incorporated

- (14) a. $\gamma\text{əm-nan}$ $n\text{ə-}\gamma\text{ay}\text{ʔ-aw}$ $k\text{uke-}\eta\text{ə}$ $t\text{ə-ma}\text{ʔe-}\text{ʔa-n}$
I-ERG ST-quick-ADV pot-ABS.SG 1SG.S/A-wipe-TH-3SG.O
- b. $\gamma\text{əm}$ $n\text{ə-}\gamma\text{ay}\text{ʔ-aw}$ $t\text{ə-koka-ma}\text{ʔe-}\text{ʔa-k}$
I.ABS ST-quick-ADV 1SG.S/A-pot-wipe-TH-1SG.S [DO incorporation]
- c. $\gamma\text{əm-nan}$ $k\text{uke-}\eta\text{ə}$ $t\text{ə-}\gamma\text{ay}\text{ʔ}\text{ə-ma}\text{ʔe-}\text{ʔa-n}$
I-ERG pot-ABS.SG 1SG.S/A-quick-wipe-TH-3SG.O [adjunct incorporation]
- ‘I quickly wiped a pot.’

- When both an argument and an adjunct are incorporated, the argument appears closer to the verb

- (15) a. $\gamma\text{əm}$ $t\text{ə-}\gamma\text{ay}\text{ʔ}\text{ə-koka-ma}\text{ʔe-}\text{ʔa-k}$
I.ABS 1SG.S/A-quick-pot-wipe-TH-1SG.S
- b. $*\gamma\text{əm}$ $t\text{ə-koka-}\gamma\text{ay}\text{ʔ}\text{ə-ma}\text{ʔe-}\text{ʔa-k}$
I.ABS 1SG.S/A-pot-quick-wipe-TH-1SG.S
- ‘I quickly wiped a pot.’

- Adjuncts do not count as interveners and do not block raising to absolutive

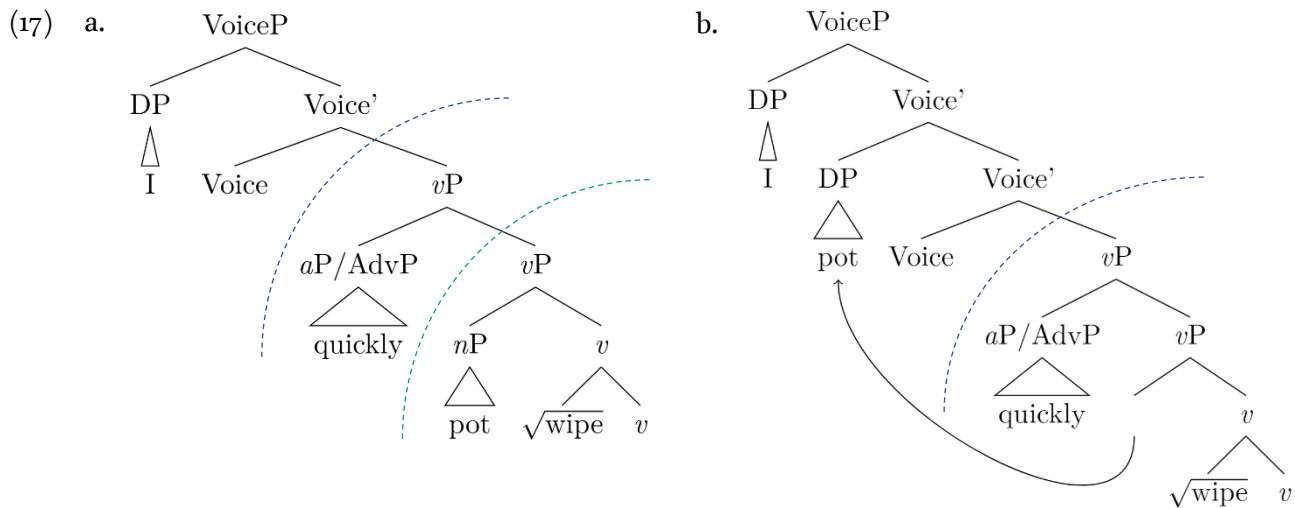
- (16) $\gamma\text{əm-nan}$ $k\text{uke-}\eta\text{ə}$ $t\text{ə-}\gamma\text{ay}\text{ʔ}\text{ə-ma}\text{ʔe-}\text{ʔa-n}$
I-ERG pot-ABS.SG 1SG.S/A-quick-wipe-TH-3SG.O
- ‘I quickly wiped a pot.’

- **Order of incorporation reflects the order of merger. Adjuncts can be incorporated.**

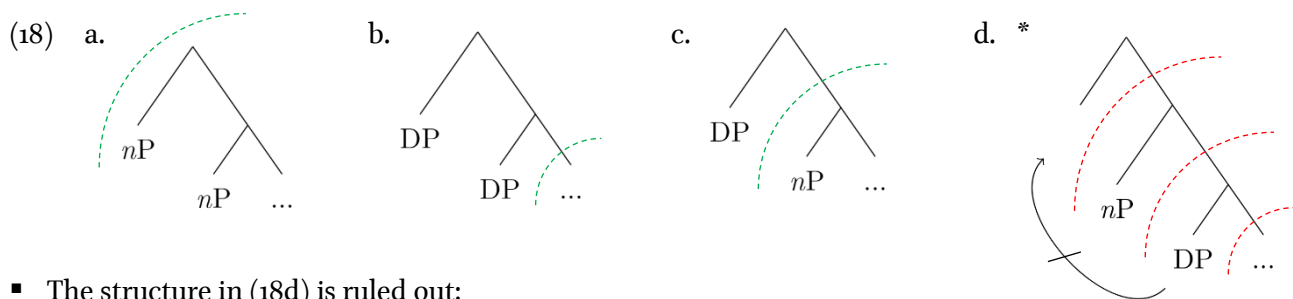
5. Proposal: incorporation is excorporation

- Incorporated nominals are *n*Ps that do not move and are base generated:
 - ⇒ incorporated objects to the left of the transitivity head
 - ⇒ ordering constraints on double argument incorporation and adjunct-argument incorporation
- If a DP is merged, it must move out of *v*P to trigger object agreement and receive Absolutive (Bobaljik 1993; Massam 2001; Abramovitz 2020 for Koryak using dependent case approach)
 - ⇒ sensitivity to relative locality in raising to absolutive

- A contiguous chunk of a syntactic tree (ν P) is pronounced as one phonological word if all nominals in its domain are n Ps devoid of D and adverbs are a Ps:
 - ♦ no DPs were merged, as in (17a)
 - ♦ all DPs vacated ν P, as in (17b), also see Öztürk (2009) on agent incorporation in Turkish



- Verbs with two internal arguments provide four possible configurations:



- The structure in (18d) is ruled out:
 - ♦ higher n P should be incorporated but lower DP disrupts contiguity
 - ♦ DP cannot vacate ν P because n P blocks movement via defective intervention
- Adjuncts do not count as interveners, making argument movement in (17b) possible

6. Conclusion

- Incorporated nouns in Chukchi are base-generated small nominals (n P/ d Ps)
- ν P can be pronounced as one phonological word if all arguments in its domain are n Ps
 - ♦ in line with proposals that map ν Ps to prosodic units or prosodic word constituents (Kratzer, Selkirk 2007, Weber 2020)

- ♦ phonological integration is an independent PF phenomenon, noun incorporation and pseudo noun incorporation should not be distinguished on the basis of it

Abbreviations

1, 2, 3	1 st , 2 nd , and 3 rd person	O	object
A	transitive subject	PF	perfect
ABS	absolutive	PL	plural
ADV	adverb	S	intransitive subject
AN	high animate	SAP	spurious antipassive
DAT	dative	SG	singular
ERG	ergative	ST	stative
GEN	genitive	TH	thematic suffix
INC	incorporated stem	TOP	superessive/on top of
INS	instrumental	TR	transitive
NMZ	nominalization	VB	verbalization

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Appendix

- Incorporated noun cannot host numerals and demonstratives, which also cannot be stranded
- (19) a. * $\eta\text{əron-}\int\text{ətt}\int\text{ə-nə-qametwa-k-w}\int\text{-e}$ b. * $\eta\text{əroq } \int\text{ətt}\int\text{ə-nə-qametwa-k-w}\int\text{-e}$
 three.INC-dog-TR-eat-CS-TH-2/3SG.SO three dog-TR-eat-CS-TH-2/3SG.S
 Intended: ‘S/he fed three dogs’. Intended: ‘S/he fed three dogs’.
- (20) a. * $\eta\text{otən-}\int\text{ətt}\int\text{ə-nə-qametwa-k-w}\int\text{-e}$ b. # $\eta\text{otqen } \int\text{ətt}\int\text{ə-nə-qametwa-k-w}\int\text{-e}$
 this.INC-dog-TR-eat-VB-TH-2/3SG.S this dog-TR-eat-VB-TH-2/3SG.S
 Intended: ‘S/he fed this dog’. ‘This one fed dog(s). / Intended: ‘S/he fed this dog’.
- Pronouns, demonstratives and proper names cannot be incorporated
- (21) a. * $\gamma\text{a-t}\int\text{on-}\int\text{ə}\text{-j}\gamma\text{ət}$ / * $\gamma\text{e-nə.kə-}\int\text{ə}\text{-j}\gamma\text{ət}$
 PF-s/he-see-PF.2SG / PF-s/he.INC-see-PF.2SG
 ‘Did you see her/him?’
- b. $\gamma\text{a-}\eta\text{utinə-}\int\text{ə}\text{-j}\gamma\text{əm}$
 PF-this.INC-see-PF.1SG
 Intended: ‘I saw this one.’
- c. $\gamma\text{a-pa}\int\text{ina-}\int\text{ə}\text{-j}\gamma\text{əm}$
 PF-Polina-see-PF.1SG
 Intended: ‘I saw Polina.’

▪ Beneficiary/IO raising:

- (22) a. ətləγ-e wəɬə pəne-nin enaraɬʔ-etə
 father-ERG knife.ABS.SG sharpen-3SG.A>3SG.O neighbor-DAT
- b. ətləγə-n wəɬa-mna-γʔ-e enaraɬʔ-etə
 father-ABS.SG knife-sharpen-TH-2/3SG.S neighbor-DAT
- c. ətləγ-e wəɬa-mna-nen enaraɬʔə-n
 father-ERG knife-sharpen-3SG.A>3SG.O neighbor-ABS.SG
- d. *ətləγ-e wəɬə enaraɬʔə-mna-nen
 father-ERG knife.ABS.SG neighbor-sharpen-3SG.A>3SG.O

‘The father sharpened a knife for a neighbor.’

▪ Instrument incorporation:

- (23) a. ŋinqeɟ wəɬa-mna-γʔ-e wəkʷ-a
 boy.ABS.SG knife-sharpen-TH-2/3SG.S stone-INS
- ‘A boy sharpened a knife with a stone’.
- b. ŋinqeɟ wəkʷə-wəɬa-mna-γʔ-e
 boy.ABS.SG stone-knife-sharpen-TH-2/3SG.S
- ‘A boy sharpened a knife with a stone’.
- c. #ŋinqeɟ wəɬa-wəkʷə-mna-γʔ-e
 boy.ABS.SG knife-stone-sharpen-TH-2/3SG.S

‘A boy sharpened a stone with a knife’. / Intended: ‘Boy sharpened a knife with a stone’.