Handout

1 Introduction

1.1 Subject obviation: general picture

- Cross-linguistically, the distribution of forms of particular person number combinations of the imp/subj happens to be restricted.

- In particular, the first-person exclusive imperative is generally prohibited from appearing in root non-interrogative environments and tend to be used only in questions[1] (cf. (1a) and (1b) from Slovenian).

(1) a. *Naj mu pomagam!
SUB 3.M.DAT help.1
int.: 'I should help him!'

b. Naj mu pomagam?
SUB 3.M.DAT help.1
'Should I help him?'

(Stegovec 2017: 159)

- In principle, it can appear in non-interrogative clauses but only when two conditions are met: (i) a clause must be embedded; (ii) the subject of the imperative must not be coreferent with the matrix subject (2).

(2) Rekla { je / *sem }, da naj si pomaga-m
said.F AUX.3 AUX.1 that SUB REFL.DAT help-1
'She / *I said that I should help myself.'

(Stegovec 2018: 5)

- The reverse pattern is observed for the second-person imperative: this form *can* be used in non-interrogatives and *cannot* appear in questions.

(3) *Sdelaj eto?

Question: What is the source of these constraints?

1.2 Stegovec's (2018) proposal[2]

- The restriction in (2) is what is known under the term *subject obviation* — a ban on coreference between the matrix and the embedded subject of the subjunctive clause (Picallo 1985; Quer 2006). A well-established phenomenon in Romance languages.

- This constraint should be viewed more broadly. Namely, what we observe in (1) can be described in a similar manner: the subject of the imperative and the actual speaker cannot be coreferent.

Generalization: (1), (2) and (3) are manifestations of the same ban on coreference between the subject of the imp/subj and the *attitude holder* — the matrix subject in

[1] Note that the fact that the imperative can be questioned and embedded is unexpected under the traditional view, according to which the imperative is a special clause type (see Zwicky and Sadock 1985; a.o.).

[2] For the sake simplicity, I omit several technical details of his analysis (but retain main components).

embedded contexts and the actual speaker in root non-interrogative contexts or the addressee in interrogatives.

- This ban results from *Condition B* requirement. Imperatives and Subjunctives involve a special kind of modal operator that takes a type *e* element (a "perspectival" *PRO*) that refers to the attitude holder.

  Embedded clauses:

  (3) She$_j$ / *I$_i$ said [that [$PRO_{j/*i}$ $OP_{f(j/*i),g(j/*i)}$ [pro_i GO.IMP/SUBJ]]].
  ≈ She / *I said that I should go.

  Unembedded non-interrogative clauses:

  (4) *SPEAKER$_i$ [PRO_i $OP_{f(i),g(i)}$ [pro_i GO.IMP/SUBJ!]].
  ≈ Intend.: I should go!

  Unembedded interrogative clauses:

  (5) ADDRESSEE$_i$ [PRO_i $OP_{f(i),g(i)}$ [[pro_j GO.IMP/SUBJ?]]
  ≈ Should I go?!

- This operator combines with "centered" conversational backgrounds of type <*e*,*cb*> restricted to an individual who is the source of the modality:

  (6) $[\![OP]\!]^c = \lambda f.\lambda g.\lambda p.\lambda x.\lambda w\,(\forall w' \in O(f_x, g_x, w))[p(w')]$
  a. f_x is the body of information available to x in w.
  b. g_x are criteria to decide between worlds compliant with f_x endorsed by x.

- This analysis correctly predicts the patterns presented above: the ban on exclusive first-person imp/subj in non-interrogatives and the ban on second-person imp/subj in interrogatives.

- It also straightforwardly accounts for the "speaker distancing ban" — the inability of the speaker of a directive clause to distance herself from a directive speech act (7) (see Kaufmann 2012; Condoravdi & Lauer 2012; Stegovec & Kaufmann 2015).

  (7) Go away! #But I don't want you to.

2 Chukchi data

2.1 Imperative paradigm

- Chukchi possesses a grammatical category whose forms are presented in the table below.

Person	SG	PL
1	**m(ə)-**	**mən-**
2	**q(ə)-**	**q(ə)-**
3	**n(ə)-**	**n(ə)-**

- Previous scholars agree that these forms are united functionally and morphologically and constitute one paradigm — the Imperative[3] (see, e.g., Skorik 1977; Nedjalkov 1994; Dunn 1999).

2.2 A well-behaved Imperative

- The forms in Table №1 possess all characteristic functions of imperative forms — the paradigm that they constitute is indeed the Imperative.

- The second-person imperative form is used for orders (8) and requests (9) directed to the addressee.

(8) **qə**-qora-ɣərke-rkən ənqen **q**-ine-winretə-rkən
2.IMP-reindeer-gather-IPV det **2.IMP**-INV-help-IPV
'Put the reindeer, help!'

(9) telʲopkaqaj anə **qə**-ɣəwjek-w-i
T.-DIM well **2.IMP**-wake.up-IRR-2/3SG.
'Well, Telyopka, wake up!'

- The third person imperative form is used to direct individuals distinct from the participants of the speech act. It also has strong (10) and weak (11) uses.

(10) ənkʔam wetɣaw-ŋaw wiin ənkə
and speak-EM for.the.moment there
opopə qeeqən **n**-re-simɣʔu-n-ŋeŋ-ɣʔe-n
better a.little.more **3.IMP**-DE-think.over-DE-get-TH-IRR.2/3SG.
'Let the chatterbox think a little bit more about it!'

(11) masənan ŋutku **nə**-wakʔo-twa-rkən ewət Ø-teɣjeŋə-rkən
let here **3.IMP**-sit-be-IPV if 2/3./A-want-IPV
'Let him sit here if he wants.'

- The first-person plural form is used to express invitation to the addressee(s) to perform an action together with the speaker (12).

(12) ənjiwŋewe **mən**-pʔoŋ-ŋəta-mək
aunt.nom **1PL.IMP**-mushroom-search.for-1PL.
'Aunt, let's go for mushrooms!'

- These forms can also be used in questions about permission or obligation. Consider the examples with the first-person (13), (14) and the third-person forms (15).

(13) a. **m**-uswitku-ɣʔe-k? b. iwke **mə**-qepɬ-uwiswetə-k
1SG.IMP-chop-TH-1SG. PTCL **1SG.IMP**-play.the.ball-TH-1SG.
'Should I chop the wood?' 'May I play the ball?'

[3] In fact, Dunn (1999) labels this paradigm "Intentional", assuming that intention is the only common component of the semantics of all forms. As will become clear later, this assumption is not really justified.

(14) a. **mən**-winret-ɣət
1PL.▯MP-help-2▯G.O
'Should we help you?'

b. iwke **mən**-ekwen-mək ɣənə-k reen
PTCL **1PL.IMP**-go-1PL.▯ you-LOC with
'May we go with you?'

(15) a. **n**-ekwet-ɣʔe-n
3.IMP-leave-TH-3▯G.▯
'Should he leave?'

b. iwke **nə**-saj-o-ɣʔa-n
PTCL **3.IMP**-tea-EAT-TH-2/3▯G.▯
'May he drink tea?'

- All these occurrences are fully expected and perfectly accounted for within Stegovec's (2018) approach. So far so good.

2.3 Not quite well-behaved

- In Chukchi, the forms of the Imperative can also be used in way that at first sight contradicts Stegovec's (2018) generalization. In all of these uses the subject of the Imperative is seemingly coreferent, or partially coreferent, with the attitude holder.

- Specifically, the forms of the first-person singular and plural can be used in non-interrogatives (16a) and (16b).

(16) a. **m**-ajmə-ɣʔa-k
1▯G.IMP-go.for.water-TH-1▯G.▯
'I will go for water!'

b. **mən**-ejwət-ɣət
1PL.IMP-bring.presents-2▯G.O
'We will bring you presents!'

- Moreover, the ban on "speaker distancing" is not always present. In particular, when a speaker uses the first-person singular form, she can subsequently add that she does not want the realization of the proposition.

(17) **mə**-waŋe-ɣʔa-k ətrʔes tə-ʔenqe-rkən
1▯G.IMP-sew-TH-1▯G.▯ but 1▯G.▯/A-not.want-IP▯V
'I will sew, though, I don't want to!'

- The form of the second-person is licensed in interrogatives (18).

(18) **qə**-miɣsiret-ɣ-i
2.IMP-work-IRR-2/3▯G.▯
'Shall you work?'

- These occurrences are not predicted by Stegovec's (2018) analysis. On the contrary, the initial motivation for his approach is exactly the non-availability of such configurations.

Summing up: In Chukchi, the distribution of imperative forms in non-embedded environments seems not to fall under "subject obviation" generalization and is not accounted for by Stegovec's (2018) proposal.

Question: Should we abandon Stegovec's (2018) proposal and the "subject obviation" generalization? (spoiler: we should modify the proposal and should not abandon the generalization)

If not, how are all these occurrences licensed?

2.4 Imperative in embedded environments

- Imperative forms in Chukchi can be embedded in a number of environments. These are, among others *clauses embedded under desire predicates* (19), and *rationale clauses* (20).

  (19) ətɬəɣə-n$_i$ ∅-teɣʔjeŋə-rkən iŋqun **qə$_j$**-tejkə-ɣə-n orwoor
  father-NOM 2/3.▯/A-desire-IP▯V COMP **2.IMP**-fix-IRR-3▯G.O sledge.NOM
  'The father desires that you should fix the sledge'.

  (20) nenenə$_i$ nota-ɣtə ∅-qət-ɣʔ-i iŋqun **n$_j$**-ətɬʔa-re-rkən
  child.NOM land-DAT 2/3.▯/A-leave-TH-2/3▯G.▯ COMP **3.▯MP**-mother-seek-IP▯V
  'The child went to tundra in order to seek the mother'.

- (19) differs in (20) in one crucial aspect: in the former the subject of the matrix clause is *not* coreferent with the subject of the embedded clause. In case subjects are coreferent the Imperative is no longer acceptable and the infinitive must be used:

  (21) iɣər tə-teɣjeŋə-rkən nuteɣsi-k
  today 1▯G.▯/A-desire-IP▯V go.to.tundra.for.roots-IN▯
  'I desire to go to tundra for roots'

- That is, the subject obviation is observed when the Imperative is embedded under a desire predicate and absent when it is used in a rationale clause.

Question: Why this variation?

3 Towards an analysis: desire reports

3.1 Background

- In the neo-Hintikkan tradition, desire predicates are treated as quantifiers over doxastic alternatives of the subject ordered by a bouletic ordering source (the lexical entry is adapted from von Fintel (1999)):

  (22) [[want]] = $\lambda\, p\, \lambda\, x\, \lambda\, w.\ \forall\, w' \in \text{BEST}_{\text{desire}}(\text{DOX}(x,w))$: $p(w')$

- Kratzer (2006, 2016) and Moulton (2009) defend an alternative view on attitude ascriptions. Under this view, the modal meaning of the whole sentence containing attitude predicates comes from covert modals located in the left-periphery of the embedded clause.

- Attitude predicates are treated as predicates of eventualities taking silent internal arguments with propositional content. Consider a lexical entry for believe from Kratzer (2016):

  (23) [[believe]] = $\lambda\, x\, \lambda\, s.$ believe(x)(s) .

- CPs are individual-type properties relate to these internal arguments.

  (24) [[CP]] = λ x. $\forall\, w'[w' \in f(x) \rightarrow p(w')]$
  where f is a variable ranging over "content functions" — functions that map certain entities to their propositional content.

- The matrix verb and CP combine via Restrict (Chung & Ladusaw 2004).
- Bogal-Allbritten (2016, 2017) has recently analyzed desire ascriptions in Navajo within this approach. Consider a semantics for a desiderative modal she provides:

  (25) $[\![\varnothing_{des}]\!] = \lambda\, p.\, \lambda\, s.\, \lambda\, w.\ \forall\, w' : w' \in \text{des}(s)(w).p(w')$

  from Bogal-Allbritten (2017: 10)

- In her analysis, however, CP denotes a property of eventualities and combines with the verb by Predicate Modification. The modal anchor is event-type.

3.2 Approaching Chukchi data

- I adopt a modal approach to imperative semantics. Specifically, I follow Kaufmann (2012) and assume that imperatives contain a covert (weak) necessity modal operator sitting at one of the highest level of syntactic structures.
- Following Kratzer (2006, 2013); Moulton (2009), I assume that the modal meaning of attitude ascriptions comes from covert modals located in the left-periphery of the embedded clause.
- The imperative modal is a suitable candidate for this role!

Proposal: in Chukchi, the Imperative modal is responsible for establishing desiderative modality when embedded under *teɣjeŋək* 'desire'.

Implementation: $[\![x$ 'desire' $\varnothing_{imp}\ \phi]\!]$ → the modal base of $\varnothing_{imp}$ is *doxastic*; the ordering source of $\varnothing_{imp}$ is *bouletic*.

- In line with Stegovec (2018), I assume that the imperative modal has to combine with centered conversational backgrounds.

Proposal: In Chukchi, the Imperative embedded under a desiderative predicate takes conversational backgrounds that are relativized to an individual — the source of the beliefs and desires.

Implementation: $[\![x$ 'want' $[\text{Imp}_{f,g}\ \phi]]\!]$ → $f_{dox}(x)$, $g_{boul}(x)$ (where f and g are of type $\langle e,cb\rangle$)

- As it was shown in the previous section (cf. (19) and (21)), in this environment there is a subject obviation effect: the Imperative is licensed only when the subject of the matrix clause is not coreferent with the subject of embedded one.
- Within Stegovec's (2018) approach, this constraint can be accounted for straightforwardly. The imperative modal has the following lexical entry:

  (26) $[\![\text{OP}]\!]^c = \lambda\, f\, \lambda\, g\, \lambda\, p\, \lambda\, x\, \lambda\, w.\ \forall\, w'[w' \in \text{O}(f_x, g_x, w) \rightarrow p(w')]$

  a. f_x is the set of beliefs of x in w.

  b. g_x is the set of desires of x in w.

- The embedded clause containing the imperative modal operator has the following denotation:

  (27) $[\![\text{CP}]\!]^c = \lambda x \lambda w.\ \forall w'[w' \in O(f_x, g_x, w) \rightarrow p(w')]$

- The matrix verb is a predicate of eventualities conjoined with a thematic role of experiencer[4]:

  (28) $[\![\text{'desire'}]\!]^c = \lambda x \lambda s \lambda w.\ \text{desire}(s)(w)\ \&\ \text{exp}(x)(s)(w)$

- The derivation of (19) proceeds in the following steps:

  Step 1: The matrix verb combines with CP via Restrict:

  $[\![\text{'desire'}]\!]^c \oplus [\![\text{'that you should fix the sledge'}]\!]^c$
  $= \lambda x \lambda s \lambda w.\ \text{desire}(s)(w)\ \&\ \text{exp}(x)(s)(w)\ \&\ \forall w'[w' \in O(f_x, g_x, w) \rightarrow$ addr fixes the sledge in $w']$

  Step 2: The experiencer position is saturated via Function Application[5]:

  $[\![\text{'desires that you should fix the sledge'}]\!]^c\ ([\![\text{'father'}]\!]^c)$
  $= \lambda s \lambda w.\ \text{desire}(s)(w)\ \&\ \text{exp(father)}(s)(w)\ \&\ \forall w'[w' \in O(f_{\text{father}}, g_{\text{father}}, w) \rightarrow$ addr fixes the sledge in $w']$

  Step 3: The state variable is existentially closed:

  $[\![\text{'the father desires that you should fix the sledge'}]\!]^c$
  $= \lambda w.\ \exists s[\text{desire(s)}(w)\ \&\ \text{exp(father)}(s)(w)\ \&\ \forall w'[w' \in O(f_{\text{father}}, g_{\text{father}}, w) \rightarrow$ addr fixes the sledge in $w']]$

Question: Why not the alternative approach in the spirit of Kratzer (2006, 2016) that uses content functions?

Answer: We have several reasons. Specifically, if the modal operator was anchored to an argument with propositional content or directly to the event of desire:

(i) its domain of quantification would be restricted to merely to desire worlds. This would invoke all of the problems identified for the Hintikkan approach.

(ii) We would not be able to derive the subject obviation effect because the null argument of the imperative modal would not be relativized to the matrix subject.

4 Towards an analysis: rationale clauses

4.1 Background

- Rationale clauses provide a teleological explanation for the matrix event. They differ from purpose clauses in that the embedded subject is coreferent with the matrix subject, not the matrix object.

- Nissenbaum (2005a, 2005b) and Grosz (2014) argue that rationale clauses contain a null modal operator.

  (27) Varitek took the A train to go to Harlem.

[4] *s* variable ranges over states.
[5] I will be assuming that nominals in Chukchi are accompanied by a null determiner.

LF: [Varitek took the A train [to $\varnothing_{rat}$ *PRO* go to Harlem]].

- They both share the intuition that the accessibility relation of this modal "does not make reference to an individual's goals, but rather to the goals intrinsic to an event." (Grosz 2014: 275).

(28) $[\![\varnothing_{rat}]\!] = \lambda p \lambda e \lambda w. \forall w' : w'$ is compatible with the goals relevant to e: $p(w')$

(adapted from Grosz 2014: 275)

- They differ in how they analyze rationale clauses. Nissenbaum (2005a, 2005b) propose that rationale clauses are predicates of event, while Grosz (2014) implies that they are propositions (possibly further turned into event properties).

4.2 Approaching Chukchi data

- Following Nissenbaum (2005a, 2005b) and Grosz (2014), I assume that rationale clauses contain covert modals which give rise to the semantics of goal-orientedness.

- The Imperative modal is again a suitable candidate for this role!

Proposal: in Chukchi the Imperative modal is responsible for establishing teleological modality when used in rationale clauses.

Implementation: $[\![e$ '(in order) to' $\varnothing_{imp}$ $\phi]\!]$ → the modal base of $\varnothing_{imp}$ is *circumstantial*;

the ordering source $\varnothing_{imp}$ is *teleological.*

- It follows from this approach that in Chukchi the Imperative modal can take various conversational backgrounds. Given what we know about properties of overt modals this is not surprising after all.

Question: If, as Stegovec's (2018) proposes, the modal operator of the imperative has to combine with centered conversational backgrounds, how does this centering come about in different environments?

- I have claimed that when the Imperative is embedded under the desiderative predicate, its conversational backgrounds are restricted to an individual.

- But the source of the modality in rationale clauses is different from the source of the modality under desire predicates (recall Nissenbaum (2005a, 2005b) and Grosz's(2014) intuition).

Proposal: In Chukchi, the imperative modal operator takes conversational backgrounds that are relativized to an event — the source of the circumstances and goals pursued.

Implementation: $[\![e$ ['(in order) to' $\text{Imp}_{f,g}$ $\phi]]\!] \rightarrow f_{circ}(e), g_{tel}(e)$ (where f and g are of type $<v,cb>$)

- Apart from capturing semantic intuitions, this analysis accounts for the absence of the subject obviation effect in rationale clauses: there cannot be *Condition B* violation because the argument of the modal is event-type.

- The denotation of the modal operator in this type of environments is presented in (29).

  (29) $[\![\text{OP}]\!]^c = \lambda f \lambda g \lambda p \lambda e \lambda w.\ \forall w'[w' \in O(f_e, g_e, w) \rightarrow p(w')]$
  a. f_e the set of facts relevant in e.
  b. g_e the set of goals pursued in e.

- The embedded clause containing the imperative modal operator has the following denotation:

  (30) $[\![\text{CP}]\!]^c = \lambda e \lambda w.\ \forall w'[w' \in O(f_e, g_e, w) \rightarrow p(w')]$

- Rationale clauses attach to *v*P (Nissenbaum 2005b). Thus, they combine with properties of events.

  (31) $[\![v\text{P}]\!]^c = \lambda e \lambda w.$ ...e in w...

- The derivation of (20) proceeds in the following way:

  Step 1: *v*P and CP combine via Predicate Modification

  $[\![$'the child went to tundra'$]\!]^c \oplus [\![$ 'in order to seek the mother'$]\!]^c$
  $= \lambda e \lambda w.$ go(e)(w) & agent(child)(e)(w) & $\forall w'[w' \in O(f_e, g_e, w) \rightarrow$ the child seeks the mother]

  Step 2: The event variable is existentially quantified over:

  $[\![$'the child went to tundra in order to seek for the mother'$]\!]^c$
  $= \lambda w.\ \exists$ e[go(e)(w) & agent(child)(e)(w) & $\forall w'[w' \in O(f_e, g_e, w) \rightarrow$ the child seeks the mother in w']]

5 Non-embedded environments

- It was shown in section 2.3 that imperative forms in Chukchi can be used in way that is not predicted by Stegovec's (2018) proposal. I have claimed that when the Imperative is embedded, it can take various conversational backgrounds depending on the environment in which it is embedded.

- If the modal operator in uses from section 2.3 encoded desiderative modality, it would provoke *Condition B* violation and make them unacceptable.

- Moreover, recall that utterances containing the form of the first-person singular form do not demonstrate the ban on "speaker distancing" (17).

Proposal: in all of these environments the modal operator takes a circumstantial modal base and a teleological ordering source. These utterances convey goal-oriented modality.

- In these environments, the imperative modal takes an event-type *PRO* that refers to the speech act event. This the reason why there is no *Condition B* violation and the reason why these uses are licensed.

- The absence of the speaker distancing ban is explained straightforwardly — the modality is not bouletic and thus the speaker is free not to want the realization of the proposition.

- However, the modality is teleological. Can the speaker state that he is not aimed at realizing the proposition? No:

  (32) **mə**-keɬitku-ɣʔe-k #ətrʔes qərəm-en ɣəm-nan jʔojoɬqəɬ
  1▯G.IMP-study-TH-1▯G.▯ but NEG.▯UT-PO▯▯ I-IN▯ goal.NOM
  'I will study, but that's not my goal'.

- **!** An important consequence of this proposal is that subject obviation in fact still holds in these uses because there the speaker is no longer the attitude holder.

5 Conclusions and open ends

- Apart from typical and typologically common functions, imperative forms in Chukchi can have deviant uses. In particular, first-person imperative forms are licensed in root non-interrogative environments, while second-person forms, on the contrast, are licensed in questions.

- After examined the distribution of the Imperative in embedded environments, I have argued that this flexibility is due to the fact that the null argument of the modal operator in imperative clauses can have an event antecedent.

- The semantic type of this argument is determined by conversational backgrounds the modal takes. The nature of conversational backgrounds is determined by the environment in which the Imperative occurs.

- An obvious prediction of my analysis is that in languages that allow exclusive first-person imperative forms in root non-interrogatives the Imperative must be available in purposive adjuncts as well. This needs to be checked

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- The Imperative in Chukchi in indirect speech reports:

  (33) ənan ɣəm$_i$ ∅-in-ik-wʔ-i iŋqun **mə$_i$**-n-siit-ewə-n mimɬ
  he.IN▯ I.NOM 2/3.▯/A-INV-say-TH-2/3▯G.▯ COMP **1▯G.IMP**-tr-heat-C▯-3▯G.O water
  'He told me that I should heat the water'.

  (34) ətlon$_i$ ∅-ik-wʔ-i iŋqun **nə$_i$**-n-siit-ewə-ni-n mimɬ
  he.NOM 2/3.▯/A-say-TH-2/3▯G COMP **3.imp**-tr-heat-cs-3sg.a.3.o-3sg water
  'He said that he would heat the water'.

- Interaction with the adverb *qonpə* 'always':

  (35) ??qonpə **m**-ajmə-rkən apaqajə-na
  always **1▯G.IMP**-go.for.water-IP▯V grandmother-AN.DAT
  Intend.: 'I will always go for water for the grandmother!'

  (36) ok ŋəto-ŋŋo-k jara-jpə qonpə **qə**-tʔə-rkən mimәɬ
  go.out-INCH-LOC house-ABL always **2.imp**-pour.out-IP▯V water
  'Leaving the house always pour out water!'