

# Sakha Quantificational Particles in Comparative Perspective

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# Introduction

- ▶ Sakha has a many intriguing quantificational particles. This paper explores two series:
  - ▶ *эрэ, эмэ, баһарар, да~даһаны*—particles which combine with interrogative pronouns like *ким* ‘who,’ *тыох* ‘what’ to form indefinite pronouns (see also [Haspelmath 1997](#): pp. 289-81).
  - ▶ *дуу, дуо*—particles which form questions.
- ▶ Here we describe the main functions of these particles, based elicitations with native speakers of the Vilyuy dialect (ВИЛЮЙСКАЯ).
  - ▶ Multifunctionality in *эрэ, да, дуу*
  - ▶ Cross-linguistic comparison of Sakha and Japanese particles

# Main functions: Indefinites with *эрэ*, *эмэ*

- ▶ *эрэ* (*ere*) forms existential quantifiers:

- (1) *Мин бэҕэһээ кими эрэ көрдүм.*  
I yesterday who-ACC PTCL see-PST-1SG  
'I saw somebody yesterday.'

- ▶ *эмэ* (*eme*)—speaker-unknown, e.g. in conditionals (2a), *yes-no* questions (2b), with modal predicates (2c):

- (2) a. *Дьулус тугу эмэ истэринэ, түгүн утуйбат.*  
Djulus what-ACC PTCL drink-COND-3SG night  
sleep-NEG.AOR.3SG  
'If Djulus drinks anything, he doesn't sleep at night.'
- b. *Ханнык эмэ сылаас утах баар дуо?*  
which PTCL warm drink exist Q  
'Are there any warm drinks available?'
- c. *Мин сарсын тугу эмэ аабыхпын сөп.*  
I tomorrow what-ACC PTCL read-PROSP-1SG can  
'I can read something (or other) tomorrow.'

## Main functions: Indefinites with *да/даһаны*, *баһарар*

- ▶ *баһарар* (bayarar)—universal, free-choice indefinites:

- (3) *Мун тузу баһарар ааһыһнын сөн.*  
I what-ACC PTCL eat-PROSP-1SG can  
'I can read anything (anything whatsoever).'

- ▶ *да* (*da*), and the longer variant *даһаны* (*dayani*) indefinites licensed by negation (4a), in comparatives (4b)

- (4) a. *Мун бэһэһээ тузу да/даһаны ааһпатым.*  
I yesterday what-ACC PTCL read-PST-NEG-1SG  
'I didn't read anything yesterday.'
- b. *Мун бэһэһээ кимнээһэр да/даһаны түргэнник*  
I yesterday what-CMPR PTCL quickly  
*сүүрдүм.*  
run-PST-1SG  
'I ran faster than anyone yesterday.'

## Main functions: Question particles *᠔yo*, *᠔yy*

- ▶ Sakha has two question-particles: *᠔yo*, which appears at the end of a *yes/no* question (5) (see also (2b)), and *᠔yy*, which appears doubled, at the end of two clauses in alternative *or* questions (6):

(5) *Студэннарын бэбэһээ кэлэ сылдьыбыттара ᠔yo?*  
student-POSS-2SG yesterday come-CVB come-PST-3PL Q  
'Did your students come over yesterday?'

(6) *Чэй уһарын ᠔yy нүрөжнэй сиурун ᠔yy?*  
tea drink-AOR-2SG Q cookie eat-AOR-2SG Q  
'Would you like to drink tea or eat cookies?'

- ▶ Neither *᠔yo* nor *᠔yy* combine with interrogative pronouns to form indefinite pronouns.

# Multifunctionality

- ▶ In addition to the large number of distinct particles in Sakha, another important aspect is the fact that many are MULTIFUNCTIONAL (i.e. perform more than one syntactic role).
  - ▶ Accidental homophony?
  - ▶ Reflective of a shared meaning across roles?
- ▶ Multifunctionality is a major theme in the literature on particles, e.g. König (1991), Haspelmath (1997), Slade (2011), Szabolcsi (2015, 2018), Uegaki (2018), Xiang (2020), Mitrović (2021).

# Multifunctionality: Focus marking with *эпэ*, *да*

- ▶ *эпэ* and *да~даҕаны* can both function as **focus** markers. *Эпэ* signals exclusive *only* focus (7a); *да~даҕаны* signals counter-expectational scalar additive focus (7b).

(7) **Context:** A dinner where there are multiple types of food served, including {bread, fish, berries}.

- Дьулус килиэн эпэ сибитэ.*  
Djulus bread PTCL eat-PST-3SG  
'Djulus ate only BREAD.' (=D. ate bread and no other alternatives)
- Дьулус килиэн да/даҕаны сибитэ.*  
Djulus bread PTCL eat-PST-3SG  
'Djulus even ate BREAD.' (=D. ate and 1+ alternative; bread unexpected)

- ▶ Focus=reasoning about relationship between **ordinary value** (i.e. the proposition without focus) and its contextual **focus alternatives** (Rooth 1985, 1992, Chierchia 2013).
- ▶ *Эпэ*: ordinary value is uniquely true among alternatives.  
*Да*: ordinary value is least expected alternative.

## Multifunctionality: coordination

- ▶ Another function: marking each member of a coordination structure in declarative sentences. *А да Б да* (*А даҕаны Б даҕаны*) means ‘both A and B’ (8a), *А дуу Б дуу* means ‘A or B’ (8b).

- (8) a. *Дьулус кофе да чэй да испитэ.*  
Djulus coffee PTCL tea PTCL drink-PST-3SG  
‘Djulus drank both coffee and tea.’
- b. *Дьулус кофе дуу чэй дуу испитэ.*  
Djulus coffee Q tea Q drink-PST-3SG  
‘Djulus drank (either) coffee or tea.’

- ▶ The difference between *дуу...дуу* in declaratives (8b) and in alternative questions (6) is what the particle attaches to: the right of a clause for questions, the right of the alternatives (sub-clausal) for declaratives.



# Cross-linguistic considerations

- ▶ Do multifunctional particles have a single meaning across their uses?
- ▶ Growing literature on the cross-linguistic distribution of quantificational particles.
  - ▶ Japanese *-mo* and *-ka* are two well-studied quantifier particles, and often serve as an analytical baseline (see [Kratzer & Shimoyama 2002](#), [Shimoyama 2006](#), [Slade 2011](#), [Szabolcsi 2015, 2018](#), [Uegaki 2018](#), [Mitrović & Sauerland 2014, 2016](#), [Mitrović 2021](#)). They display wide meanings across narrow grammatical contexts.

## In comparison to Japanese *-mo*, *-ka*

- ▶ Japanese *dare* means ‘who,’ while *dake* means ‘only.’ See Appendix for examples.

	Sakha	Japanese
i. <i>yes-no</i> question	дуо (5)	ka
ii. <i>or</i> question	дуу...дуу (6)	ka...ka
iii. declarative <i>or</i>	дуу...дуу (8b)	ka...ka
iv. someone (or other)	ким эмэ (2)	dare-ka
v. someone	ким эрэ (1)	
vi. exclusive focus ( <i>only</i> )	эрэ (7a)	dake
vii. conjunction	да...да (8a)	mo...mo
viii. scalar focus ( <i>even</i> )	да/ даҕаны (7b)	mo, demo
ix. anyone (negative)	ким да/ даҕа-ны (4)	dare-mo
x. anyone (free-choice)	ким баҕарар (3)	dare-demo

Table: Comparison of Japanese and Sakha particle systems. (Kratzer & Shimoyama 2002, Shimoyama 2006, Szabolcsi 2015, 2018, Mitrović & Sauerland 2014, 2016, Mitrović 2021, Uegaki 2018). Examples in appendix.

- **Blue:** Jpn. *-ka* translates to Sakha *duo* (i), *duu* (ii, iii), *эмэ* (iv), *эрэ* (v).
- **Red:** Jpn. *-mo/-demo* translates to Sakha *да~даҕаны* (vii, viii, ix) and *баҕарар* (x).
- **Gray:** Sakha *эрэ* translates to *-ka* (iv), *dake* (vi).

	Sakha	Japanese
i. <i>yes-no</i> question	дуо	ka
ii. <i>or</i> question	дуу...дуу	ka...ka
iii. declarative <i>or</i>	дуу...дуу	ka...ka
iv. someone (or other)	ким эмэ	dare-ka
v. someone	ким эрэ	
vi. exclusive focus ( <i>only</i> )	эрэ	dake
vii. conjunction	да...да	mo...mo
viii. scalar focus ( <i>even</i> )	да/ даҕаны	mo, demo
ix. anyone (negative)	ким да/ даҕа-ны	dare-mo
x. anyone (free-choice)	ким баҕарар	dare-demo

- We do not observe ‘mix-and-match’ patterns. Subset relations.

# Grammatical comparison: *-ka*, *ɔyy* coordination

- In *or* questions, *-ka*, *ɔyy* attach to a clause (9), (10).

(9) Hanako-ga hasitta-mitai-**ka** Jiro-ga hashitta-mitai-**ka** (osheite).  
Hanako-NOM ran-seem-Q Jiro-NOM ran-seem-Q (tell)  
'(tell me): Was it either Hanako or Jiro who seemed to run?'  
(Uegaki 2018: 7) (Japanese)

(10) *Дьулус кофе усnumэ ɔyy, Түүара (кофе (усnumэ)) ɔyy?*  
Djulus coffee drank Q Tuyara (coffee (drank)) Q  
'Was it Djulus or Tuyara who drank coffee?' (Sakha)

- In declaratives (11), (12), particle attaches to constituents smaller than clause (to the alternatives):

(11) [Hanako-**ka** Jiro-**ka**]-ga hashitta.  
[Hanako-Q Jiro-Q]-NOM run.PST  
'Either Hanako or Jiro ran.' (Uegaki 2018: 3) (Japanese)

(12) [*Дьулус ɔyy Түүара ɔyy*] *кофе усnumэ*.  
[Djulus Q Tuyara Q] coffee drink-PST-3SG  
'Either Djulus or Tuyara drank coffee.' (Sakha)

# Conclusion

- ▶ We have examined the distribution of two main groups of Sakha quantificational particles: those that build indefinites with question pronouns (i.e. *да~даҕаны, эрэ, эмэ, баҕараар*, and those that build questions (i.e. *дүү, дуо*).
- ▶ We have also examined multifunctionality observed in *да~даҕаны, эрэ, дүү*.
- ▶ While Sakha particles present unique arrays of functions, they can nevertheless be situated within broad classes of cross-linguistic particles that have been identified in the literature.

Махтал!  
Спасибо!  
Thank you!

**Glossing:** 1,2,3= first- second-, third-person,  
ACC=accusative case, AOR=aorist (non-past),  
COND=conditional mood, CVB=converb, NOM=nominative  
case, NEG=negation, PL=plural, POSS=possessive,  
PROSP=prospective participle, PST=past tense, past  
participle; PTCL=particle, Q=question/disjunction particle,  
SG=singular.

I would like to thank my Sakha consultants for sharing  
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# Appendix: Japanese data I

- ▶ Jpn. *-mo* appears as an *even* focus marker (13a), doubled conjunction (13b), negative indefinites (13c). *-demo* focus marker (13a), free-choice indefinites (13d).

- (13)
- a. John-wa [Hon A]-**mo**/-**demo** yon-da.  
John-TOP [book A]-PTCL/-PTCL read-PST  
'John even read BOOK A.' (Nakanishi 2006: 142)
  - b. Takashi-wa [tuukan-siken-ni-**mo** kimatu-siken-ni-**mo**]  
Takashi-TOP [midterm-exam-DAT-PTCL term.end-exam-DAT-PTCL]  
ukatta.  
passed  
'Takashi passed both the midterm and the final.' (Shimoyama 2011: 439)
  - c. **Dare-mo** utaw-ana-katta.  
who-PTCL sing-NEG-PST  
'Nobody sang.' (Imani 2020: 497)
  - d. **Dare-demo** utae-masu.  
who-PTCL sing-can  
'Anyone can sing.'

- ▶ When the interrogative pronoun carries pitch accent and is marked for case, *-mo* also forms universal quantifiers (14).

## Appendix: Japanese data II

(14) **Dáre-mo-ga** utatta.

who-PTCL-NOM sing.PST

‘Everybody sang.’ (Imani 2020: 498)

- Jpn. *-ka* appears in a variety of types of questions, including *yes-no* questions (15a), in content questions (15b) (i.e. *wh*-questions), and doubled in alternative questions (15c).

(15) a. Hanako-ga hashitta-**ka**?

Hanako-NOM run.PST-Q

‘Did Hanako run?’ (Uegaki 2018: 13)

b. Dare-ga hashitta-**ka**?

who-NOM run.PST-Q

‘Who ran?’ (Uegaki 2018: 12)

c. Hanako-ga hasitta-mitae-**ka** Jiro-ga hashitta-mitai-**ka**

Hanako-NOM ran-seem-Q Jiro-NOM ran-seem-Q

(osheite).

(tell)

‘(Tell me) which is true: It seems that Hanako ran or it seems that Jiro ran?’ (Uegaki 2018: 7)

## Appendix: Japanese data III

- ▶ *-ka* also appears in declarative disjunction for sub-clausal elements (16a) (note that the second *-ka* is optional), as well as with existential quantifiers when *-ka* appears with a host interrogative pronoun (16b)

- (16) a. [Hanako-**ka** Jiro-**ka**]-ga hashitta.  
[Hanako-Q Jiro-Q]-NOM ran.PST  
‘Either Hanako or Jiro ran.’ (Uegaki 2018: 3)
- b. **Dare-ka-ga** hashitta.  
who-Q-NOM run.PST  
‘Somebody ran.’ (Uegaki 2018: 3)
- (17) Hanako-**dake**-ga hashitta.  
Hanako-only.PTCL-NOM run.PST  
‘Only HANAKO ran.’