The Sakha focus particle *da(qanɨ)**

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1 Introduction

• The Siberian Turkic language Sakha (exonym: "Yakut"), has a range of interesting focus/quantifier particles which serve a variety of uses (see Haspelmath 1997, "Yakut").
• One in particular, *daqanɨ* ([daʁanɨ], [daːnɨ]) and its phonetically reduced form *da*, shows certain overlap with a type of quantifier particles known as MO- or TOO-particles (MO after Japanese *-mo* Kratzer and Shimoyama 2002, Szabolcsi 2015), though notably *da(qanɨ)* never appears to function as a basic additive 'too' particle.
• As a quantifier/focus particle, *da(qanɨ)*'s contribution to an utterance is highly dependent on the semantic/pragmatic properties of its host.
• When the particle's host is an interrogative pronoun like *tuox* 'what' (1-a) or the numeral *biir* 'one' (1-b), *da(qanɨ)* forms Negative Polarity Items (NPIs), licensed by negation (1-a-i), (1-b-i) and the standard of comparison (1-c)

(1) Sakha *da(qanɨ)*-based NPIs

a. (i) Min [tugu da(qanɨ)] aax-pa-t-ɨm
I what.ACC *da* read-NEG-PST-1SS
'I didn't read anything'

(ii) *Min [tugu da(qanɨ)] aax-t-ɨm
'*I read anything (yesterday)'

b. (i) Min [biir da kinige-ni] aax-pa-t-ɨm
I one *da* book-ACC read-NEG-PST-1SS
'I didn't read any book(s)'

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(ii) *Min [biir da kinige-ni] aax-t-ɨm
'*I read any book (yesterday)'

c. Tujara [kim-neeqer da(qanɨ)] uhun
Tujara who-CMPR *da* tall
'Tujara is taller than anyone'

• *Da(qanɨ)* can also appear in scalar focus environments, i.e. focused contexts where something about the host is pragmatically unexpected or unlikely (similar to English *even*)

(2) Scalar focus *da(qanɨ)*

a. [(Onnooqor) studjen da(qanɨ)] iti kinge-ni aax-(pa)-ta
even student *da* that book-ACC read-(NEG)-PST
Positive: 'Even THE STUDENT read that book' (=speaker considers the student to be the least contextually likely to read the book)
Negative: 'Even THE STUDENT didn't read that book' (=speaker considers the student to be the least contextually likely to not read the book)

b. [Elbex da kihi] kir-er
many *da* person come-AOR
'So many people are coming' (more than speaker expected)

c. [Kini ilii-te ɨraas da(qanɨ)] sirej-e kirdeex
s/eh hand-3SP clean *da* face-3SP dirty
'Even though his/her hands are clean, his face is dirty'

• Finally, *da(qanɨ)* appears doubled in coordination constructions. In non-negative sentences, the resulting reading is a 'both...and' meaning (3-a).[1] With negation, the reading is a narrow scope disjunction (3-b).

(3) *Da(qanɨ)...da(qanɨ)* coordination

a. Djulus [kofje da(qanɨ)] [čaj da(qanɨ)] aax-ta
Djulus coffee *da* tea *da* drink-PST
'Djulus drank both coffee and tea'

b. Djulus [kofje da(qanɨ)] [čaj da(qanɨ)] aax-pa-ta
Djulus coffee *da* tea *da* drink-NEG-PST
'Djulus didn't drink coffee or tea' / 'Djulus drank neither coffee nor tea'

• Of the many intriguing properties of *da(qanɨ)*, there are two aspects that are most puzzling semantically:

(i) NPIs are generally analyzed in the literature as existentials/disjunctions which cannot outscope negation for semantic/pragmatic reasons (Chierchia 2013, Crnič 2014), and focus alternatives (2) are likewise generally handled as existential/disjunctive (Rooth 1992, Szabolcsi 2017). How, then, does the 'both...and' reading of *da(qanɨ)...da(qanɨ)* coordination (3-b) emerge?

[1] Positive *da(qanɨ)...da(qanɨ)* is pragmatically restricted. It is most felicitous in as either i) an answer to a question or ii) contexts where it is unexpected that both coordinands are true (i.e. where there is a pragmatic expectation that only one would obtain). In more neutral contexts, *uonna* 'and' (X *uonna* Y 'X and Y') is used.

(ii) While it turns out that quantifier particles playing a role in NPIs, scalar focus, and 'both...and'/'neither...nor' coordination are actually relatively well-attested crosslinguistically (e.g. Japanese *-mo*, Hungarian *is/sem*), *da(qanɨ)* differs from all the attested cases I am aware of in that it lacks a basic additive *also/too* (or *either* with negation) meaning:

• In both positive and negative sentences, *da(qanɨ)* fails to yield a basic additive 'too'/'either' reading. Instead another particle *emie* 'also; again' is used:

(4) *Da(qanɨ)* lacks a basic additive 'too', 'either' meaning:

a. Min {emie / #da(ɣanɨ)} is-t-im
I {*emie* / *da*} drink-PST-1SS
'I_F drank (it), too'

b. Min {emie / #{da(ɣanɨ)} is-pe-t-im
I {*emie* / *da*} drink-NEG-PST-1SS
'I_F didn't drink it, either'

• Interestingly, *da(qanɨ)*'s cognate in other Turkic languages very often DOES have an additive reading, such as Turkish *DA* (5) and Tuvan *=DAA*

(5) Turkish *DA*[2]

a. Ben de kitab-ı oku-d-um
I *da* book-ACC read-PST-1SS
'I read the book, too' (=I read it and somebody else did)

b. Ben de kitab-ı oku-ma-d-ım
I *da* book-ACC read-NEG-PST-1SS
'I didn't read the book, either'

(6) Tuvan *=DAA*

a. Men=daa nom ekel-d-im
I=*daa* book bring-PST-1SS
'I brought the/a book, too'

b. Men=daa nom ekel-be-d-im
I=*daa* the/a book bring-NEG-PST-1SS
'I didn't bring the book, either'

1.1 Roadmap

• §2 background of recent analyses of quantifier particles and examines the distribution of *da(qanɨ)* to quantifier/focus particles which partially overlap with *da(qanɨ)*. The alternation of full *daqanɨ* and reduced *da* is investigated.

• §3 briefly outlines a semantic proposal for *da(qanɨ)*, where it is analyzed as an element which marks the alternatives of its host as obligatorily active (following the theory developed in Chierchia 2013). The

[2]Turkish *DA* does not form NPIs, and moreover only serves the role of a focus particle (not a quantifier particle). See §2.

distribution, and resulting interpretation, results from the types of alternatives that the host bears before *da(qanɨ)* activates these alternatives (if any at all).

• §4 conclusion

2 Comparison of crosslinguistic particles resembling *da(qanɨ)*

2.1 What do quantifier particles do?

• The term "particle" generally refers to an uninflectable,[3] bound elements that seems to form a noncompositional meaning with its host, or else does not have a consistent meaning among its hosts. Stated differently, a consistent meaning among all of its uses is hard to pin down.

• These particles are doing a lot of work. For example, consider Hungarian *is* (negative concord *sem*). With direct/clausemate negation, it forms NPIs/negative concord items (NCIS) (7-a). With indirect/matrix negation, *is* forms NPIs based on the particle *vala-* and an interrogative (7-b). Interestingly, *vala*+WH without *is* (7-c) is anti-licensed by negation (i.e. functions as a positive polarity item, PPI) (7-c).

(7) Hungarian *is* (negative concord *sem*):

a. Pál *(nem) látott **sen-ki-t**
Paul (NEG) saw *sen*-who-ACC
'Paul did not see anybody' (Tóth 1999: 125)

b. *(Nem) hiszem, hogy [**vala-ki** **is**] el jön
(NEG) believe.1SS that INDEF-who *is* VB.PTCL come.3SS
'I do not think that anyone will come' (Halm 2016: 144)

c. (*Nem) hiszem, hogy [**vala**-ki] el jön
(NEG) believe.3SS that INDEF-who VB.PTCL come
'I think that somebody will come' (Halm 2016: 144)

• Similarly, Sakha interrogatives without *da(qanɨ)* are plain wh-elements (8-a), whereas *biir* 'one' is a numeral (8-b). *Da(qanɨ)*'s use with these elements as a host **creates** NPIs.

(8) a. (i) Kim iti kinige-ni aax-(pa)-ta
who that book read-(NEG)-PST
'Who read that book?' / 'Who didn't read that book?'

(ii) [Kim da(qanɨ] iti kinige-ni aax-*(pa)-ta
who *da* that book-ACC read-(NEG)-PST
'Nobody read that book', lit. 'anybody didn't read that book'

b. (i) Min [biir kinige] aax-(pa)-ta
I one book read-(NEG)-PST
'I read one book'/ 'I didn't read one (single) book'

[3] While particles are often claimed to be uninflected there do appear to be counterexamples. In fact, Haspelmath (1993: 285), referencing (Ubrjatova 1982: 202) shows that colloquial Sakha WH+*eme*, e.g. *kim eme* who PTCL 'someone (or other)' allows case inflections on both the WH-word and the particle (e.g. ABL: *kim-ten eme-tten* 'to somebody (or other)'.

(ii) Min [biir da kinige] aax-*(pa)-ta
I one *da* book read-(NEG)-PST
'I didn't read any book(s)'

• There is a rich, growing literature on the syntax and semantics of quantifier particles (see Szabolcsi 2015, Mitrović 2021). We can summarize three main views of their semantic contribution.

(i) One holds that they cannot be considered a single lexical item (see Hagstrom 1998, Cable 2010 on Japanese *-mo*)—i.e. they represente ACCIDENTAL HOMOPHONY, potentially etymologically related.

(ii) The meaning is, in some degree, noncompositional. That is, the "real" elements of meaning are the host+particle units.

(iii) The uses of a quantifier particle constitute a single semantic contribution that it shared among all the uses (Mitrović and Sauerland 2014, 2016, Mitrović 2021)

• In her influential paper "What do quantifier particles do?", Szabolcsi (2015: 161) poses three questions that quantifier particles raise for semantic compositionality (The pre-posed, underlined questions are my own)

(9) a. "Do the roles of each particle form a natural class with a stable semantics?"
b. "Are the particles aided by additional elements, overt or covert, in fulfilling their varied roles? If yes, what are those elements?"
c. "What do we make of the cross-linguistic similarities and differences in the distribution and interpretation of the particles?"

2.2 MO/TOO-particles crosslinguistically

• Much of the literature on quantifier particles begins with comparisons with the indeterminate pronoun system of Japanese, as it is no doubt the most well studied example of such (Kuroda 1965, Kratzer and Shimoyama 2002, Shimoyama 2006, Mitrović 2014, Szabolcsi 2015)

(10) Japanese *-mo*

a. Quantificational noun phrases (QNPs) with *-mo*

(i) {daré-**mo** / donó gakusei **mo**} hanashi-ta
who-*mo* / which student *mo* talk-PST
'Everybody talked' / 'Every student talked' (Mitrović 2021: 7)

(ii) Yoko-ga [gakusei-o dare-**mo**] syootaisi-*(nakat)-ta
Yoko-NOM student-ACC who-*mo* invite-NEG-PST
'Yoko didn't invite any student' (Shimoyama 2006: 417)

(iii) dare-de-**mo**
who-*de-mo*
'Anyone' with modal (Free choice item)

b. *-mo* as a marker of focus

(i) [Sono syoonin-**mo**] damatteita
that witness-*mo* be.silent.PST
○ Reading 1 (additive focus): 'THAT WITNESS was silent, too'
○ Reading 2 (scalar focus): 'Even THAT WITNESS was silent' (Shimoyama 2006: 145)

c. Coordination, doubled *-mo*

(i) Takashi-wa [tyuukan-siken-ni-**mo** kimatu-siken-ni-**mo**] {ukat-ta / ukara-nakat-ta}
Takashi-TOP midterm-exam-DAT-*mo* term.end-exam-DAT {pass-PST / pass-NEG-PST}
○ Positive: 'Takashi passed both the midterm and the final'
○ Negative: 'Takashi didn't pass the midterm or the final' / '...passed neither the midterm nor the final' (Shimoyama 2011: 439)

• While the universal generalized quantifier meaning that results from accented-WH-*mo* is somewhat uncommon, the overlap of a particle that appears in (i) NPIs, (ii) *also/even* focus, and (iii) 'both...and' coordination (narrow scope disjunction under negation) is actually exceedingly common.

(11) Japanese *mo*, Sakha *da(qanɨ)* (as *da* for space), Tuvan *DAA*, Turkish *DA*, Hungarian *is/sem*, Bosnian-Serbian-Croatian (BCS) *i/ni*, Hindi *bhii*. Blanks=to be determined

		(QNPs)			(Focus)		(Coordination)	
	Language, particle	∀-GQ, 'everyone'	NPI, 'anyone'	FCI, 'anyone'	Additive, 'X too/ also/ either'	Scalar, 'even X'	'Both X and Y'	'neither X nor Y'
a.	Japanese, ***-mo***	✓, *daré-**mo***	✓, *dare-**mo***	✓, *dare-de-**mo***	✓, X-***mo***	✓, X-***mo***	✓, X-***mo*** Y-***mo***	✓, X-***mo*** Y-***mo***
b.	Sakha (Turkic), ***da(qanɨ)***	✗	✓, *kim **da***	✗	✗	✓, (*onnoːqor*) X ***da***	✓, X ***da*** Y ***da***	✓, X ***da*** Y ***da***
c.	Tuvan (Turkic), ***=DAA***	✓, *kɨm-**daa***	✓, *kɨm-**daa***		✓, X-***daa***	✓, X-***daa***	✓, X-***daa*** Y-***daa***	✓, X-***daa*** Y-***daa***
d.	Turkish (Turkic), ***DA***	✗	✗	✗	✓, X ***da***	✓, X ***da***	✓, X-***da*** Y-***da***	✓, X-***da*** Y-***da***
e.	Hungarian (Uralic), ***is/sem***	✗	✓, *vala-ki **is**, akár-ki **is**, **sen**-ki*	✓, *akár-ki **is***	✓, X ***is***, X ***sem***	✓, *még **is***	✓, X ***is*** Y ***is***	✓, ***sem*** X ***sem*** Y, X ***sem*** Y ***sem***
f.	BCS (Indo-European), ***i/ni***	✗	✓, ***i**-(t)ko, **ni**-(t)ko*	✗	✓, ***i*** X, ***ni*** X	✓, (čak/ makar) ***i*** X	✓, ***i*** X ***i*** Y	✓, ***ni*** X ***ni*** Y
g.	Hindi (Indo-European), ***bhii***	✗	✓, *koii **bhii***	✓, *koii **bhii***	✓, X ***bhii***	✓, Y ***bhii***	✓, X ***bhii*** *aur* Y ***bhii***	

⇑ **Sources:** Japanese (Shimoyama 2006, 2011, Nakanishi 2006, 2012, Szabolcsi 2015), Sakha (Daria Boltokova, p.c., Krueger 1962, Haspelmath 1997, Landmann 2016), Tuvan (Arzhaana Syuryun, p.c., Iskhakov and Pal'mbakh 1961, Krueger 1977, Anderson and Harrison 1999, Harrison 2000, Landmann 2017), Turkish (Deniz Satık, p.c., Hande Sevgi, p.c.), Hungarian (Tóth 1999, Szabolcsi 2010, 2015, 2017, 2018, Halm 2016, Tamás Halm, p.c.), BCS (Progovac 1994, Mitrović and Sauerland 2014, 2016, Szabolcsi 2017), Hindi

(Ankana Saha, p.c., Lahiri 1998, Szabolcsi 2017)
Components: Japanese *dare* 'who'; Sakha *kim* 'who', *onnooqor* 'even, especially'; Tuvan *kim* 'who'; Hungarian *ki* 'who'; BCS *(t)ko* 'who'; Hindi *koii* 'somebody'

• The table in (11) strongly suggests that this constellation of meanings is a natural class (in some sense).
• Use as a universal generalized quantifier is observed only in (a) Japanese (with an accented WH-word) and (c) Tuvan.
• Use in an FCI (whether of the epistemic indefinite 'somebody or other type' or the universal 'anybody (at all)' type) is observed in Japanese (a), Hungarian (e), and Hindi (g).
• **Sakha da(qanɨ) appears to be unique in lacking a basic additive *too/also/either* reading.** A TOO-particle that doesn't ever mean *too*?

2.3 What is additivity?

• Additivity is generally defined as a presupposition that, in addition to the ordinary value of a proposition, some additional focus **alternative** is true (Rullmann 2003, Szabolcsi 2017)

(12) a. [IVAN$_{\mathrm{F}}$ drank coffee], too/also
Presupposition= Somebody other than Ivan drank coffee
b. [Ivan DRANK$_{\mathrm{F}}$ coffee], too/also
Presupposition= Ivan did something else to (the) coffee (e.g. *Ivan stirred the coffee. He DRANK coffee, too*)
c. [Ivan drank COFFEE$_{\mathrm{F}}$], too/also
Presupposition= Ivan drank something other than coffee

(13) [IVAN$_{\mathrm{F}}$ didn't drink coffee], either
Presupposition= Somebody other than Ivan didn't drink coffee

• For Japanese *-mo*, Kobuchi-Philip (2009) ties the 'both...and'/'neither...nor' reading that emerges with doubling as a "short-term" additive presupposition. That is, for *X-mo Y-mo* 'both X and Y', X has a presupposition that another alternative is true (satisfied by Y), etc. Szabolcsi (2015) follows this analysis for Hungarian *is/sem*. If *da(qanɨ)* lacks the additive presupposition entirely, this suggests against this analysis.
• **Challenge:** For the scalar reading of *da(qanɨ)*, there IS an additive presupposition present, as in English:

(14) [Onnooqor studjen da(qanɨ)] iti kinige-ni aax-ta
even student *da* that book-ACC read-PST
'Even THE/A STUDENT read that book'

a. Scalar presupposition: The student was very unlikely to read the book.
b. Additive presupposition: Somebody other than the student read the book.

• Crosslinguistically, there is a difference between the additive presupposition of elements like *even* and those of *also*. Namely, *even*'s additive presupposition is able to be suspended (15), while *also*'s is not (16)

(15) **Context:** Pooh and Eeyore come across a bush of thistles. Eeyore (a known thistle enjoyer) takes a bite and spits it out:
'Those thistles must be really prickly! Even Eeyore spit them out' (Szabolcsi 2017: 458)
(Nobody else spit thistles out!)

(16) I don't know if Sardaana drank coffee. # But if Djulus did too, he'll probably be hyper.

2.4 *Daqanɨ* vs. *da*

• Alternation noted since Böhtlingk (1851), though I am unaware of any work describing what factors may govern the alternation.
• In NPs, the reduction to *da* is correlated with the position the particle appears in. With determiner-less NPs, the particle is invariantly NP final (17). With determiner, particle immediately follows the determiner (18).

(17) Bare NPs—particle is NP final
a. (Adj) Noun *da(qanɨ)*
b. *(Adj) *da(qanɨ)* Noun

(18) NPs with determiners—-particle immediately follows determiner
a. Det *da(qanɨ)* Noun
b. *Det (Adj) *da(qanɨ)* Noun
c. *Det (Adj) Noun *da(qanɨ)*

• When NP final, either the full or reduced form is acceptable (19). With determiners, reduction is preferred when the determiner is roughly two or fewer syllables (20-a)-(20-b). Full *daqanɨ* is accepted if the determiner is three or more (20-c)

(19) NP-final
a. kim da(qanɨ)
'anybody' (NPI)
b. tugu da(qanɨ)
'anything.ACC' (NPI)
c. studjen da(qanɨ)
'even the student' (scalar focus)

(20) Second-position
a. biir da(??qanɨ) kinige
'any book' (NPI)
b. elbex da(??qanɨ) kihi
'SO many people' (scalar, intensifier)
c. aqijax da(qanɨ) oqolooxtor
'even those with few children' (scalar)

• This effect is clearest when considering a possessive NP serving as *da(qanɨ)*'s focus. Like many Turkic languages, in Sakha the possessum obligatorily inflects for the possessor (21-a). This can be optionally reinforced with an overt personal pronouns (21-b).

(21) a. ehe-em
grandfather-1SP
'My grandfather'

b. min ehe-em
I grandfather-1SP
'My grandfather (not yours)'

• The second position effect of *da(qanɨ)* is observed when an overt personal pronoun is used (22-b)

(22) a. iti kinige-ni [ehe-em **da(ɣanɨ)**] aaɣ-ɨa-n söp
that book-ACC grandfather-1SG.POSS *da(ɣanɨ)* read-FUT-CVB can
'Even MY GRANDFATHER can read that book'

b. Iti kinige-ni [min **da(**??**ɣanɨ)** ehe-em] aaɣ-ɨa-n söp
that book-ACC I *da* grandfather-1SG.POSS read-FUT-CVB can
'Even MY GRANDFATHER can read that book'

c. **...min eheem da(ɣanɨ)...*

• With longer pronouns like *bihigi* 'we', both full *daqanɨ* and reduced *da* are acceptable (23-b)

(23) a. Min **da(**??**ɣanɨ)** ehe-em
I *da* grandfather-1SP
'even MY GRANDFATHER'

b. Bihigi **da(ɣanɨ)** ehe-bit
We *da* grandfather-1PP
'even OUR GRANDFATHER'

• Undeniable that these are the same morpheme.

• *da(ɣanɨ)* coordination presents another interesting pattern. When it serves as an answer to a question, there is a slight preference for both particles to be full *daɣanɨ*. In other contexts, there is generally a preference for at least one particle to be shortened to *da*

• Because we see alternation of the particle in each of its roles, accidental homophony is unlikely. This is a rare piece of evidence!

3 Semantic proposal

• Grammatical Theory of Polarity Sensitivity (Chierchia 2013)—elements with active semantic alternatives are interpreted by a grammatical operator called an **exhaustifier**. These operators take a proposition (known as the prejacent) which has alternatives and exhausts all of the non-entailed alternatives.

• Two main exhaustifiers: O, a covert counterpart to *only*, and E, a covert counterpart to *even*. Choice between them depends on the nature of the alternatives (E for rich, totally ordered scales).

• **Proposal:** primary function of *da(qanɨ)* is to "activate" the alternatives of its host and make them obligatorily active.[4]

• On some level, the host of *da(qanɨ)* is a disjunction/existential.

• The resulting meaning, and distribution, depends on the semantics of the host, specifically whether there are already alternatives present in the environment/lexical item.

(24) NPIs are created when the host is a low-point-of-scale existential:

a. WH-elements, like *kim* 'who'
$[\![\text{kim}]\!] = \lambda P_{\langle e,t\rangle}.\exists x[\text{person}(x) \wedge P(x)]$ ALTs=$< \exists, \forall >$

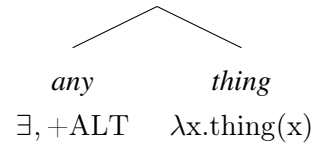
[4]The significance of an alternative being obligatory or not (i.e. "ordinary" implicatures in Chierchia's (2013) terms) is that obligatory alternatives cannot prune (i.e. ignore) alternatives that contradict the prejacent because the implicature is not subject to Gricean relevance, whereas ordinary implicatures (e.g. exclusive disjunction like English *or*) allow contradictions to be pruned.

b. *biir* 'one'
$[\![\text{biir}]\!] = \lambda P_{\langle e,t\rangle}.\lambda Q_{\langle e,t\rangle}.\exists x[|x| = 1 \wedge P(x) \wedge Q(x)]$ ALTs={one, two, three,...,}

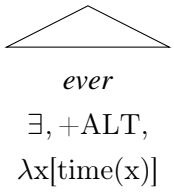
• Because WH-elements and numerals inherently bear their own alternatives (i.e. by their very definition they have alternatives) and they specifically refer to (at least) the lowest positive value of that scale, making these alternatives obligatory results in a polarity item (see Chierchia 2013, Kirby 2020, 2021)

(25) English NPIs

a. *anything*

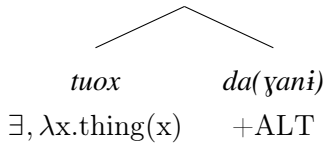


b. *ever*

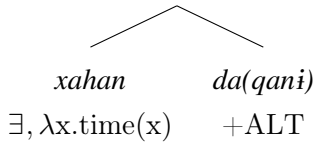


(26) Sakha NPIs

a. *tuox da(ɣanɨ)*



b. *xahan da(qanɨ)* 'ever' (*xahan* 'when')



(27) **Scalar focus**

a. The scale associated with focus reading of *da(qanɨ)* is independent of the particle. Pragmatically/contextually activated. *Da(qanɨ)* simply marks that the alternatives are active (or rather, realizes the activation of alternatives)

b. $[\![\phi_F]\!] = \text{ALT}(\phi)$
If subdomain alternatives of ϕ are $\{\phi, \psi, \delta\}$, then $\text{ALT}(\phi) = \phi \vee \psi \vee \delta$

c. Scalar alternative, where μ(X)=pragmatic likelihood of X, then $\ll \mu(\phi) < \mu(\psi), \mu(\delta) \gg$

d. Because it is a rich scale, exhaustification proceeds with E(ven). Satisfiable only if the prejacent is the lowest ranked member of its scale

(28) **Doubled coordination**

a. With *da(qanɨ)...da(qanɨ)* coordination, the coordination is underlyingly disjunction, with *da(qanɨ)* marking that each disjunct is an obligatory alternative.

b. That is, for *X da(qanɨ)* OR *Y da(qanɨ)*, X+*da(qanɨ)* encodes that X is an alternative of Y, and Y+*da(qanɨ)* encodes that Y is an alternative of X.

c. The doubling can be taken as a morphosyntactic reflex that exhaustification is recursive.[5]

d. Because these *da(qanɨ)*-marked coordinations do not come out of the lexicon with their own

[5] See Chierchia (2013), Chierchia et al. (2012), Fox (2007), Fox and Katzir (2011), Szabolcsi (2017) on recursive exhaustification.

alternatives and thus DO NOT have a stronger scalar alternative,

e. In non-negative sentences, this results in *X da* OR *Y da* uniformly being strengthened to (*X* AND *Y*)

3.1 Where is additivity?

• Perhaps the most challenging part of *da(qanɨ)*'s distribution is explaining why this particle fails to induce an additive presupposition.

• To understand why the additive presupposition is lacking in *da(qanɨ)*, we first need to understand where additivity comes from in the other particles, which has proven a challenge in the semantic literature (see Szabolcsi 2017 for review).

• **Approach 1:** Szabolcsi (2017) derives the additive presupposition through recursive exhaustification of a set of focus alternatives. The important difference to the above cases is that, in addition to activating the alternatives, Szabolcsi proposes that TOO-particles "bifurcate" the prejacent from the set. Perhaps Sakha *da(qanɨ)* is simply not specified to do so?

• **Approach 2:** Another possibility is that *da(qanɨ)* actually DOES semantically induce an additive presupposition, but differs from particles like Japanese *-mo*, Hungarian *is/sem* in that its additive semantics is bundled with the scalar alternative (hence we only observe it with the *even*, scalar focus reading).

• **Approach 3:** A third possibility is that *da(qanɨ)* is blocked from appearing in basic additive focus environments because the language has another particle which would serve this role: *emie*. There are two observations which hint at this possibility:

1. Sakha has a lot of quantifier particles. In addition to *da(qanɨ)*, there is also *baqarar* (*kim baqarar* 'anybody') which forms universal free-choice items, *eme/emie/emit* (*kim emit* 'someone or other', 'some person') which forms an epistemic indefinite, and *ere* (*kim ere* 'somebody') which forms specific-known existentials. This is more than are reported in any of the languages in Table (11).

2. Sakha *da(qanɨ)* also appears to have the narrowest distribution of the quantifier particles reported in Table (11).

⇒ This third approach suggests that these quantifier particles can be analyzed in a suppletion relationship, which identifies the cause of *da(qanɨ)*'s lack of additivity as the presence of another form *emie/eme/emit* which blocks *da(qanɨ)* from activating alternatives when additivity is specified.

• In many ways, it is harder to explain the examples where there is an additive presupposition than to explain its absence in Sakha.

4 Conclusion and outlook

• Sakha *da(qanɨ)* represents a unique distribution for a quantifier particle, though its distribution is predicted by exhaustification-based theories of NPIs, focus.

• There are likely particles in other languages which show a similar distribution when investigated through the same lens as the present study.

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