"Emphasis and (Anti-)Additivity in Polarity Particles: Sakha *da(ghany)* and *emie*"

This paper considers the particle *da(ghany)* [daʁanɨ] (often reduced to *da*) from the Siberian Turkic language Sakha, based on extensive fieldwork with a native speaker. This particle forms NPIs (2), and elsewhere associates with emphatic *even*-like readings (3). Standard exhaustification-based theories treat NPIs as low-point existentials with obligatorily active semantic alternatives (Chierchia 2006, 2013, Crnič 2011). These alternative enriched LFs are fed into covert exhaustifiers (O(nly) or E(ven)), which return an interpretable LF only if an appropriate downward monotone operator (e.g. negation) scopes below the exhausitifier ($OP_{exh} <$ NEG $< \exists$).

Da(ghany) NPIs, being built built out of an existential and a particle that is elsewhere *even*-like, resemble Chierchia's (2013: 147–69) category of *even-some/one* NPIs. Drawing on evidence from Hindi *bhii* 'also, even' NPIs (Lahiri 1998), he treats these as inherently emphatic NPIs, exhaustified with E(ven) (i.e. *minimizers*, akin to *at all, give a damn*). Intriguingly, Sakha *da(ghany)* NPIs typically lack any detectable emphasis, and further, *biir da* 'any' NPIs like (2-b) are less emphatic than *biir* 'one' under negation without *da* (5-a). Emphasis was gauged in two ways. First, if given sentences like (2-a) with *biir da* or (5-a) plain *biir* 'one' in isolation, is the sentence felicitous to use if there are marginal exceptions? E.g. if the speaker did read something marginally book-like such as a pamphlet. Secondly, if given pairs of sentences like (2-a) and (5-a) side-by-side, is one more tolerant of marginal exceptions and, further, does one or the other more strongly encode that the speaker is surprised by this? For both metrics, the *biir da* NPIs were reported to be more of tolerant of marginal exceptions and less pragmatically surprising than *biir* 'one' under negation.

This paper argues that, while *da(ghany)* presents a significant hurdle for exhaustification-based theories, it can be accounted for if we relax one assumption about E(ven). Namely, E(ven) does not in-and-of itself produce emphatic meanings, but only does so when the scale it is fed is a ranking of pragmatic/contextual likelihood. The second aspect of this paper relates to the fact that *da(ghany)* differs from NPI particles in other languages in that it lacks an additive *too/also* reading. This I account for as a blocking effect by another alternative-sensitive particle *emie/emit*.

Distribution *Da(ghany)* NPIs are formed in combination with the numeral *biir* 'one' (2-a) as well as with WH-indefinites (2-b). These NPIs are licensed only by Anti-Additive functions, e.g. negation and the comparative (2-c). It is anti-licensed by weaker downward-entailing functions. In other words, these are strict NPIs (Gajewski 2011). Outside of these NPIs, *da(ghany)* serves two other main roles. First, there are the *even*-like readings (3) discussed above. Second, when doubled, it forms a complex coordination—with negation (4-a) this results in a 'neither X nor Y' reading. In positive sentences (4-b), it has a 'both X and Y' reading. The positive use is pragmatically marked and is most felicitious when it appears in an answer to a question (whether a plain information-seeking *WH*-question like *What did Djulus drink?* or a disjunctive like *Did Djulus drink coffee or (did he drink) tea?*), or when both coordinands are contextually unlikely to obtain together (e.g. if we know that Djulus is unlikely to drink both coffee and tea, (4-b) is felicitious).

Analysis Given that *da(ghany)* associates with emphatic scalar readings (3) and some readings of the positive version of the doubled coordination (4-b), it would be reasonable to expect that *da(ghany)* NPIs would be emphatic as well. WH+*da(ghany)* NPIs (2-b) are compatible with emphatic readings, particularly if *olox* 'at all' is added (i.e. if the object of (2-b) is *olox tugu da(ghany)* 'anything at all'). On the other hand, *biir da* NPIs (2-a) are quite unemphatic—in fact, *biir* under negation without *da* is much more emphatic than (2-a). *Biir da* is essentially no more emphatic than bare nominals under negation (5-b). Moreover, polar questions, known to induce emphasis in NPIs (Chierchia 2013: 151), do not license *da(ghany)* NPIs. In (6) we see that the absence of *da*

produces such an emphatic reading. As said above, these NPIs have the hallmarks of Chierchia's (2013) *even-one* NPIs. Why then is *biir da* (2-a) less emphatic than plain *biir* under negation (5-a)?

Further, given that *biir* 'one' is a numeral, the appropriate exhaustifier for *biir da* NPIs should be E—on Chierchia's theory, this is dictated by the Principle of Optimal Fit (1):

(1)   OPTIMAL FIT (Chierchia 2013: 153) In exhaustifying ϕ, use O unless O(ϕ) is contradictory or vacuous AND there is a salient probability metric μ. μ is salient iff (1-a) OR (1-b) holds:

    a. μ is salient in the context
    b.   the alternatives of ϕ are totally ordered by an entailment relationship

If we follow (1), we can accurately predict the badness of WH+*da(ghany)* NPIs in positive environments, as well as their acceptability in negative environments. As WH-indefinites are existentials, their alternatives are a reduced scale $< \exists, \forall >$. Because the prejacent $[\exists x\ \phi(x)]$ does not entail $[\forall x\ \phi(x)]$, exhaustification in a positive environment $[O(\exists x\phi(x))]$ is contradictory. With negation, $[O(\neg\exists x\ \phi(x))]$ is vacuously true because $[\neg\exists x\ \phi(x)]$ entails $[\neg\forall x\ \phi(x)]$. To emphasize this meaning and produce the emphatic readings of WH+*da(ghany)* NPIs, the alternatives must be ranked contextually (1-a). This results in E-exhaustification kicking in, which returns an interpretable LF only if the prejacent is less likely than all other alternatives. But because the positive version was contradictory with O, further rounds of exhaustification cannot render it grammatical—hence special emphatic situations do not rescue WH+*da(ghany)* NPIs in positive environments.

What about *biir da*? Assumedly *biir* 'one' here has the same meaning as elsewhere: it is an existential with a cardinality-restricted domain (i.e. $[\![biir]\!] = \exists x[P(x) \wedge Q(x) : |x| = 1]$). Numerals have a rich scale of alternatives (i.e. the entire scale of natural numbers). *Da(ghany)* makes these alternatives obligatorily active. Following (1), exhaustification starts with O, where again positive environments are contradictory but negative environments are interpretable. But now our motivation for proceeding to E follows from the nature of our alternatives (1-b), not context.

The difference between these two paths to E is what is crucial: E itself does not produce emphasis. Rather, emphasis obtains only if (1-a) applies. If only (1-b) applies, no emphasis results. The final detail relevant here is why *biir* without *da* (5-a) is much more emphatic that *biir da* (2-a). My solution lies in the fact that *biir* 'one' is a true numeral in this language. By itself, it induces (non-obligatory) scalar implicatures. Ranking of the alternatives arises because the speaker of (5-a) has chosen to restrict the domain. That is to say, they used *biir* 'one' rather than a bare noun (5-b). This induces pragmatic probability, hence it is exhaustified with E following (1-a), producing emphasis.
(Anti-)Additivity An additional typologically unique detail is that *da(ghany)* lacks basic additive *too/also* use (7). (7) is infelicitous on a plain additive reading (7-a)—this sentence can only have an *even* reading (7-b). To express an additive meaning, a different particle *emie* 'also, again' would be used in place of *da(ghany)* in (7). This absence of a basic additive reading relates to Szabolci's (2017) analysis of NPIs formed with semantically underspecified TOO particles. Crucially, *da(ghany)* has an additive presupposition in its emphatic uses (3). To account for the absence of basic additivity, I propose that this reading is blocked by *emie*. This blocking obtains on a deep level between these two morphemes, as evidenced from the fact that non-Anti-Additive licensers have equivalent indefinites based on *emie* (e.g. *emit* in a conditional (8)). This has broader implications for a theory of alternatives in the lexicon, in that particles like *da(ghany)* and *emie* are morphosyntactic reflexes of particular LF operations (e.g. the activation of alternatives and exhaustification) taking place, rather than overt manifestations of these operations.

(2)   a.   Min [biir da kinige] aax-*(pa)-tym
            I   [one *da* book]   read-(NEG)-PST.1SG
            'I didn't read any book'

        b.   Min [tugu   da(ghany)] aax-*(pa)-tym
            I   [what.ACC *da(ghany)*] read-(NEG)-PST.1SG
            'I didn't read anything'

        c.   En   [kim-neegher da(ghany)] öjdööx-xön
            You [who-CMPR   *da(ghany)*] smart-2SG
            'You are smarter than anyone'

(3)   a.   [(Onnooghor) studjen da(ghany)] kinige-ni   aax-(pa)-ta
            [(even)   student *da(ghany)*] book-ACC read-(NEG)-PST
            'Even THE STUDENT (didn't) read the book'

        b.   [Elbex da kihi]   kinige aax-(pa)-ta
            [many *da* person] book   read-(NEG)-PST
            'So many people (didn't) read that book' (speaker expected less (pos.), more (neg.))

(4)   Djulus [kofje   da(ghany)] [čaj da(ghany)] is-(pe)-te
        Djulus [coffee *da(ghany)*] [tea *da(ghany)*] drink-NEG-PST

    a.   With NEG *-pe*: 'Djulus drank neither coffee not tea'/'Djulus didn't drink coffee or tea'

    b.   Without NEG *-pe*:'Djulus drank both coffee and tea'

(5)   a.   Min [biir kinige] aax-pa-tym
            I   [one book]   read-NEG-PST.1SG
            'I didn't read EVEN ONE/A SINGLE book'

        b.   Min kinige aax-pa-tym
            I   book   read-NEG-PST.1SG
            'I didn't read (any) book(s)'

(6)   [Saatar biir (*da) kinige-ni]   aax-pɨt-ɨŋ   duo?
        [even   one (*da*) book-ACC] read-PST-2SG Q
        'Did you read even ONE book?' / 'Did you even read ANY book?'

(7)   [Djulus da(ghany)] kofje   is-(pe)-te
        [Djulus *da(ghany)*] coffee drink-(NEG)-PST

    a.   i. #'DJULUS drank coffee, also'   ii. #'DJULUS didn't drink coffee, either'

    b.   i. 'Even DJULUS drank coffee'   ii. 'Even DJULUS didn't drink coffee'

(8)   Djulus [tugu   {emit / *da(ghany)}] oŋor-dogh-una...
        Djulus [what.ACC {*emit / da(ghany)*}   ] repair-CONDIT-3SG
        'If Djulus repairs anything...'

References Chierchia, G. (2006). "Broaden your views". *LI* 37.4: 535–90. Chierchia, G. (2013) *Logic in Grammar*. Oxford UP. Crnič, L. (2011). "Getting *even*" PhD Dissertation, MIT. Gajewski, J. (2011). "Licensing strong NPIs". *NLS* 16: 69–110. Lahiri, U. (1998). "Focus and negative polarity in Hindi". *NLLT* 6: 57–125. Szabolcsi, A. (2017). "Additive presuppositions are derived through activating focus alternatives". *Proceedings of the 21st Amsterdam Colloquium*: 455–464.