# Deriving epistemic modality from inverted negation in Forest Nenets

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▲ **The puzzle**. Forest Nenets (Samoyedic<Uralic) expresses negation with a combination of a negative verb *ni-* and a connegative form of the lexical verb, see (1).

(1) mań    ńi-ta-š        ŋamoλ
    I      NEG-1SG-PST    eat.CNG
    'I haven't eaten'      (Potseluev 2023)

However, when the order of the negative and lexical verbs is reversed, the construction conveys epistemic modality rather than negation, see (2). Here we will label this inverted construction as **pseudo-negation**.

(2) {I hear voices in the next room}
    ńeḿa-m            ńeša-m           munuʔ-s ńi-x́iŋ
    mother-POSS.1SG   father-POSS.1SG  talk-CNG NEG-3DU
    'It must be mom and dad talking'   (Glavatskih 2023)

In sentential arguments, pseudo-negation is interpreted not as embedded epistemic modality, but rather as a plain interrogative complement.

(3) maša d́ex́eλa    k´iḿa čuk´i d́aλa-ŋ tuλ        ńi-ša
    M.   not.know    who   this  day-GEN come.CNG  NEG-PST.Q
    'Masha doesn't know who came today'

▲ **High Negation?** Forest Nenets has a dedicated allomorph of past tense *-sa/ša-* (PST.Q), which is restricted to questions and unconditionals, but never appears in affirmative sentences. Curiously, pseudo-negation is marked with PST.Q and not with regular past tense, see (4). Gusev (2020) suggests that choice of PST.Q instead of PST indicates that pseudo-negation is a grammaticalized rhetorical question.

(4) ṕix́ińa xaλ´u ŋ́i-ńi-ša       /  *ŋ́i-ńi-š
    outside rain  be-NEG-PST.Q  /  *be-NEG-PST
    'Must be raining outside' [Go check]

Unlike regular negation, pseudo-negation does not license NPIs, cf. (5-6). This, together with PST.Q, might indicate that pseudo-negation is inherently a question with high negation (HighNeg). See (Todorović 2024; Miličević 2007) on Serbian, where HighNeg fails to license NPIs.

(5) tamna k´iḿa-xaλt ńi-ša       tuλ?
    yet   who-SCAL   NEG-PST.Q  come.CNG
    'Anyone came yet?'

(6) {*k´iḿa-xaλt / ᴼᴷk´iḿa-xama} tuλ         ńi-ša
    *who-SCAL   /  who-TOP       come.CNG NEG-PST.Q

'Maybe, someone came?'

HighNeg questions are typically associated with positive epistemic bias, which is pretty close to the epistemic modal reading we get from pseudo-negation. To understand whether questions with pseudo-negation are HighNeg questions or questions with embedded epistemic modality, we should examine how they are used in contexts of different epistemic and evidential bias (Domaneschi, Romero & Braun 2017; Sudo 2013; AnderBois 2019). Although HighNeg and modal questions are similar in that they require Speaker to have epistemic bias towards the truth of *p,* HighNeg questions are licenced in cases where Speaker believes in *p* but has negative evidence against it, while modal questions disallow such negative evidence (Giannakidou & Mari 2019). As shown in (7-8), positive epistemic bias with negative evidence against *p* does not license pseudo-negation. Instead, plain negation is used with *ŋami* 'what'. Such data suggests that pseudo-negation is not a HighNeg question, but rather a modal.

(7) {I come to the shop and don't know what they might be selling today. The shopkeeper tells me that they only have oil and shaving foam. I say:}
d′a-m     ńi-ša-ta          taʔ
flour-ACC   NEG-PST.Q-3SG>SG    bring.CNG
'They didn't bring flour?'     *neutral epistemic bias, negative evidential bias*

(8) {I come to the shop. Earlier my neighbour told me that they brought flour to the shop. The shopkeeper tells me that they only have oil and shaving foam. I say:}
d′a-m     ŋami {ńi-ša        taʔ       / #taʔ         ńi-ša}
flour-ACC   what {NEG-PST.Q   bring.CNG   / #bring.CNG   NEG-PST.Q}
'Didn't they bring flour?'          *positive epistemic bias, negative evidential bias*

▲ **Proposal.** We suggest that pseudo-negation at its core is disjunction of two clauses of form *p* ∨ ¬*p,* as in (9), which has undergone morphological erosion.

(9) piʰta    prazdnika-n        to-sa        (ŋaj) ńi-ša
(s)he   celebration-DAT    come-PST.Q  (but) NEG-PST.Q
'Did he come to the celebration or not?'

The hypothesis that Forest Nenets disjunction could've developed into epistemic modality can be additionally motivated by the fact that the conditional marker *-pʔ(na)-* (COND), which can also mark disjunction, acquires an epistemic modal meaning when used independently, see (10-11).

(10) {I know that Vera lives in a red house. I see two red houses and point towards one}
čukæxana  d′iλ′i-p-ta
here        live-COND-POSS.3SG
'She lives here, probably'     (Glavatskih 2023)

(11) ŋami  ńeša-ʔ  ŋæ-p-tuŋ        ŋami-ʔ  ŋæ-p-tuŋ        xalaʰku-ʔ ŋæ-pna-n-tuŋ
what   man-PL  be-COND-POSS.3PL   what-PL  be-COND-POSS.3PL  animal-PL be-COND-GEN-POSS.3SG
'Either people, or something, or maybe animals.'  (Budzisch & Wagner-Nagy 2024)

Kang and Yoon (2020) analyze Korean modal questions with a disjunctive marker *–(i)nka* and derive epistemic modality from disjunction through the notion of nonveridical equilibrium. Judging from data on pseudo-negation and COND marking, the same path of

semantic development from disjunction to epistemic modality might've happened in Forest Nenets. In the talk we discuss how Kang and Yoon's analysis might be expanded to fit our data. Additionally, we aim to explain why pseudo-negation loses its modal meaning in sentential arguments and why both disjunction and question license the PST.Q allomorph.

▲ **References.**

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