



What 'not' might mean Expletive Negation in Attitude Contexts

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What is Expletive Negation?

EXPLETIVE NEGATION (EN): sentential negators or negative complementizers that do not reverse the polarity of a proposition.

- Identical to sentential negation: *mi(n)* (NEG) [Modern Greek - MG]
- NEG + Declarative Complementizer: *mi-pos* (NEG-that) [MG]

(1) Fovame mi-pos/ mi simivi kati kako. [MG]
fear lest.EN/ NEG happen something bad.
"I fear that something bad might happen."

Table 1. EN-selecting Predicates (CG: Classical Greek, LA: Latin, SP: Spanish, FR: French, RU: Russian, HE: Hebrew)

	MG	CG	LA	SP	FR	RU	HE
<i>fear</i>	+	+	+	+	+	+	
<i>hope</i>	+	+	-	-	-	-	
dubitatives	+	+	+	+	+	+	
Rogative predicates	+	+	+	-	-	-	
<i>Hinder, resist, refuse, delay, ...</i> **	-	+	+	-	+	-	+

*EN is licensed on condition that the matrix predicate is negated

**The negative verbs that license EN vary crosslinguistically

Previous approaches

EN has been analyzed as:

- semantically vacuous;
- real negation (-);
- other (e.g. notional Subjunctive).

EN is assumed to be licensed only in Subjunctive / non-veridical complements.

(2) a. Je crains qu' il ne vienne. [FR]
I fear that he NEG come.SBJ.
"I fear that he might come."

b. Je crains d' (*ne) apprendre une mauvaise nouvelle.
I fear of NEG learn.INF a bad new
"I fear hearing some bad news."

The puzzle

Table 2. No Correlation between EN and Mood (Ind.: Indicative, Subj.: Subjunctive, Opt.: Optative, Inf.: Infinitive)

	Emotive Doxastics	Dubitatives	Interrogative Pred.	Negative Pred.
MG	Ind. / Subj.	Indicative	Indicative	
CG	Ind. / Subj. Opt. / Inf.	Subj. Opt. / Inf.	Ind. / Subj.	Ind. / Subj. Opt. / Inf.
LA	Subjunctive	Subjunctive	Subjunctive	Subjunctive
SP	Subjunctive			
FR	Subjunctive	Subjunctive		Subjunctive
RU	Subj. / Inf.	Subjunctive		
HE				Infinitive

If EN is not licensed solely in Subjunctive complements and it can be licensed in infinitival complements,

- Why is it ungrammatical in (2b) but not (2a)?
- Why is it grammatical with CG, RU & HE infinitives but not the others?

Sentences with non-anaphoric tense license EN

Three diagnostics were used to characterise semantic tense as Free, Dependent or Anaphoric:

1. Availability of morphological tense alternations;
2. Availability of a matrix and an embedded temporal deictic adverb with distinct reference;
3. Licensing of an overt subject.

Table 3. EN is not licensed in sentences with anaphoric tense. → EN scopes above Tense.

	Em. Dox.	Dubitatives	Rogatives	Negative P.
MG	Free	Free	Free	
CG	Free/ Dep.	Free	Free/ Dep.	Free
LA	Dependent	Dependent	Dependent	Dependent
SP	Dependent			
FR	Dependent	Dependent		Dependent
RU	Free	Free		
HE				Free

Licensing Predicates

Emotive Doxastics

(*fear, hope*) [Anand & Hacquard 2013 modified]

(3) John fears that Mary is pregnant.

Presupposes: John is not sure whether Mary is pregnant or not.

Asserts: John considers possible both that Mary is pregnant and that she is not. &

John considers likely that Mary is pregnant. & Mary being pregnant is less desired than not being pregnant.

(4) $[[\text{fears}_c \text{ that } \varphi]]^{c,w,s,g} = \lambda x:$

φ -verifiers in $S' \neq \emptyset$ & φ -falsifiers in $S' \neq \emptyset$ uncertainty condition
If defined =1 iff

$\exists w' \in S': [[[\varphi]]^{c,w',s',g} = 1] \wedge$ doxastic assertion

φ -verifiers $<_{\text{DES},w}$ φ -falsifiers \wedge preference assertion

φ -verifiers $>_{\text{PROB},w}$ φ -falsifiers preference assertion

where $S' = \text{DOX}_{x,w}$ and

φ -verifiers in $S' = \lambda S'' : S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' :$

$[[[\varphi]]^{c,w',s''',g} = 1]$

φ -falsifiers in $S' = \neg \varphi$ -verifiers in S'

Dubitatives

(*doubt, suspect*) (Anand & Hacquard 2013)

(5) John doubts that Mary is pregnant.

Presupposes: John is not sure whether Mary is pregnant or not.

Asserts: John considers possible both that Mary is pregnant and that she is not. &

John considers less likely that Mary is pregnant.

The meaning of dubitatives differs from that of emotive doxastics in that they do not introduce a desirability scale. So, their preference component is only the scale in (6):

(6) φ -verifiers $<_{\text{PROB},w}$ φ -falsifiers preference assertion

Interrogative Predicates

Veridical Responsive Predicates (*know, remember, tell, forget, be aware*) license EN only if they are negated. If not, they select for questions or declarative complements. They are implicatives with a *that*-complement, whereas with *whether* they are not.

(7) *(Dhen) thimame pos/ an/ mimos itan i Maria pu eklise tin porta
NEG remember that if EN was the Mary that shut the door.
"I don't remember that/ whether/ whether it was Mary that shut the door."

Based on the semantics of *know* proposed by Uegaki (2012)

(8) a. $[[\text{know that } p]]^{w} = \lambda Q \in D_{(st,t)} : [\exists p \in Q [p(w) = 1]] \wedge$

$\lambda x. \forall p \in Q [p(w) = 1 \rightarrow \text{DOX}_{x,w} \subseteq p]$.

b. $[[\text{know whether } p]]^{w} = \lambda Q \in D_{(st,t)} : \lambda x. \forall p \in Q [p(w) = 1 \rightarrow$

$\text{DOX}_{x,w} \subseteq p]$.

Rogative Predicates (*ask, wonder, investigate, examine*) [Uegaki 2012]. They select for questions or EN complements:

(9) Rotisa ean/ mimos hriazosun tipota.

Ask if/ EN need anything.

"I asked whether you needed anything."

Both veridical responsive predicates and rogative predicates select for questions $\langle \langle s, t \rangle \rangle$. The difference between the two lies in that rogative predicates carry a "non triviality presupposition" defined in (10):

(10) $[[\text{wonder}]]^{w}(Q)(x)$ is defined iff x can believe both of the following:

$\lambda w. \exists p \in Q [p(w) = 1]$. (In prose, there is a true proposition in Q .)

$\lambda w. \exists p \in Q [p(w) = 0]$. (In prose, there is a false proposition in Q .)

The non-triviality presupposition of rogative predicates is the same as the uncertainty condition of emotive doxastics and dubitatives.

In sum, all the predicates selecting EN select for complements of type $\langle \langle e, t \rangle, t \rangle$ and are compatible with a bipartition of the doxastic alternatives of the epistemic subject. In other words, it is selected by predicates that have existential force (\exists or $\neg \forall$)

Semantic Contribution of Expletive Negation

A. Epistemic Modals are ungrammatical in EN complements but licensed in *that*-complements.

(11) Fovame pos/ *mipos mpori na erthun ta pedhia simera.
fear that/ EN may SB come the children today
"I fear that children may come today."

B. A sentence with an emotive doxastic with a *that*-complement can be a felicitous answer to a question, while one with EN cannot:

(12) A: Erhete o Jorgos? B: Fovamai pos/ #mipos erhete.
Come the George Fear that EN come
A: "Is George coming?" B: "I am afraid he is coming."

C. Matrix Negation can have different scope

(13) a. Dhen fovame pos/ mimos kseri tin alithia. Ime sighuros
NEG fear that EN know the truth be1SG sure
pos ehi mavra mesanihta.
that has black midnight

"I do not fear that he knows the truth. I am sure he is totally ignorant."

b. Dhen fovame #pos/ mimos kseri tin alithia. Vasika
NEG fear that EN know the truth Basically
to elpizo kiolas.
itCL hope.1SG even

"I don't fear that he knows the truth. Actually, I even hope it."

D. The matrix predicate can have a different interpretation depending on the C (EN or not):

(14) Elegha pos/ mimos chriazese voithia.
say.1SG.Pst.Imp. that EN need help
that: "I assumed that you need help."

EN: "I wondered whether you need help."

Proposal

EN has the meaning of a *weak epistemic modal*. It modifies the likelihood scale that is introduced by the complementizer *pos* (that) (15a) and it asserts that the doxastic alternatives of the attitude holder can be equally likely (15b). Thus it triggers a scalar implicature that the different doxastic alternatives are equally likely (15c).

(15) a. $\varphi >_{\text{LIKELY}} \neg \varphi$ *that*-complement

b. $\varphi \geq_{\text{LIKELY}} \neg \varphi$ EN-complement

c. $\varphi =_{\text{LIKELY}} \neg \varphi$ scalar implicature triggered by EN

The reply with the EN-complement in (12) is less informative than that without EN, thus the implicature in (15c) is triggered. That is why using EN renders the answer infelicitous. In (13b) the scalar implicature triggered by EN allows matrix negation to target and reverse the desirability scale. Since this implicature is not available without EN, this second reading is only available with EN.

Extensions: EN can be used instead of epistemic *tha* 'will' in counterfactuals

(16) An epines afto siropi tha/ mimos ghinosun kala.
if drink.Pst.Imp. this syrup will/ EN become.Pst.Imp. well
no EN: "If you drank that syrup you would get well."
EN: "If you drank that syrup you might get well."

Summary

EN similar to (weak) Epistemic Modals:

- scopes above Tense (Table 3);
- is selected only by predicates with existential force (\exists or $\neg \forall$);
- marks a set of doxastic alternatives as equally probable and
- can be used in the apodosis of counterfactuals. Additionally, it
- is in complementary distribution with epistemic modals.

Conclusions

- EN is a weak epistemic modal;
- EN is compatible only with predicates that involve a bipartition of the doxastic alternatives of the epistemic subject;
- Complementizers, including *that* and Expletive Negation, have semantic contribution and can affect the interpretation of the matrix predicate.