Accounting for Exceptives that form Strong NPIs: the Case of Chechen

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Weak vs. strong NPIs

Negative Polarity Items are licenced in downward-entailing environments (Zwarts 1998 et seq.)

- Downward entailing (e.g. conditional antecedents)
- Anti-additive (e.g. the restrictor of *every* and *no*)
- Antimorphic (e.g. sentential negation)

Weak vs. strong NPIs

(1) Hierarchy of NPI-licencing environments (Zwarts 1998): downward entailing > anti-additive > antimorphic

- Weak NPIs are grammatical in all types of environments
- Strong NPIs are grammatical only in antimorphic environments

Weak-NPI exceptives

The distribution of *but*-exceptives in English resembles that of weak negative polarity items (Gajewski 2008, 2013, a.o.)

(2) *All/No/*Most/*Many/*Some boys but Phil smoke.*

Strong-NPI exceptives?

(3) French (O'Neill 2011)

Je ***n'*** *ai* *vu* ***que*** *le* *professeur.*

I NE have see QUE the professor

'I only saw the professor'

- von Fintel & Iatridou 2007 propose that *que* should be analyzed as an exceptive (although see Homer 2015 for an alternative view)
- Exceptive semantics have been suggested for similar items in other languages, cf. Japanese *sika* (Sauerland & Yatsushiro 2023 a.o.) and Korean *pakkey* (Sells 2001)

This talk

1. Overview of the distribution of the Chechen exceptive *bien*
2. Adapting the approach of Sauerland & Yatsushiro 2023 to Chechen data
3. Cases where the approach cannot be directly applied
4. A possible alternative approach

Background on Chechen

Chechen (< Northeast Caucasian)

- ca. 1 800 000 speakers
- Ergative alignment
- Head-final; the basic word order is SOV
- The data was collected during online elicitation sessions with native speakers of the Lowland dialect (basis of the literary standard)

Distribution: clausemate negation

(4) *Musa* ***bien*** *urok-ie* ***ca*** *v-ea-na.*
M. EXCP class-ALL NEG AGR-come-PFV

'Only Musa came to the class'

Distribution: matrix negation

(5) *As* *hwo-ga* *'Aishat-e* ***bien*** *qaiqa* ***ca*** *eli-ra.*
1SG.ERG 2SG-ALL A.-ALL EXCP call NEG say-WPST

'I asked you to call only Aishat'

Distribution: prohibitive

(6) a. *Bepig ma eca-hw.*
bread NEG buy-POL.IMP

'Do not buy bread'

b. *Bepig* ***bien ma*** *eca-hw.*
bread EXCP NEG buy-POL.IMP

'Buy only bread'

Distribution: restrictor of *every*

(7) **Hora* *jolxalgha* *shardar* ***bien*** *d-i-n-chu*
every sixth problem EXPT AGR-do-PST.PTCP-OBL
desharxuo-chuo *qo'* *dakqi-na.*
student-ERG 3(C) get-PFV

Int.: 'Every student that solved anything but the sixth problem got a C.'

Distribution: conditional antecedent

(8) **Ahw* *jolxalgha* *shardar* *bien* *d-a-hw,* *suo*
2SG.ERG sixth problem EXPT AGR-do-COND 1SG

cec-v-er *v-u.*
get.surprised-AGR-FUT.PTCP AGR-AUX.PRES

Int.: 'If you solve anything but the sixth problem, I will be surprised.'

The exception set can be overtly expressed

(9) *Musa* ***bien*** *desharxuo urok-ie* ***ca*** *v-ea-na.*
M. EXCP student class-ALL NEG AGR-come-PFV

'No student but Musa came to the class'

Compatible with indefinites that scope below negation

- *Cwa ’a* is a strong NPI indefinite (lit. ∼ ‘even one’, cf. Hindi *ek bhii*, Lahiri 1998)
- Those are treated as existential quantifiers under negation (Lahiri 1998, Chierchia 2013)

(10) *Cwa ’a urok-ie *(ca) v-ea-na.*
one ADD class-ALL NEG AGR-come-PFV

‘Nobody came to the class’

Compatible with indefinites that scope below negation

(11) *Musa* ***bien*** *urok-ie* *cwa* *'a* ***ca*** *v-ea-na.*
M. EXCP class-ALL one ADD NEG AGR-come-PFV

'Nobody but Musa came to the class'

(12) *Musa* ***bien*** *urok-ie* *cwa* *'a* *desharxuo* ***ca***
M. EXCP class-ALL one ADD student NEG

v-ea-na.
AGR-come-PFV

'No student but Musa came to the class'

Incompatible with indefinites that outscope negation

(13) *Cwa' urok-ie ca v-ea-na.*
one class-ALL NEG AGR-come-PFV

'Somebody did not come to the class'

(14) **Musa* ***bien*** *cwa' urok-ie* ***ca*** *v-ea-na.*
M. EXCP one class-ALL NEG AGR-come-PFV

Int.: 'Somebody other than Musa did not come to the class'

Incompatible with quantifiers that outscope negation

(15) *Massuo'a urok-ie ca v-ea-na.*
everyone class-ALL NEG AGR-come-PFV

'Everyone did not come to the class'

(16) **Musa* ***bien*** *massuo'a urok-ie* ***ca*** *v-ea-na.*
M. EXCP everyone class-ALL NEG AGR-come-PFV

Int.: 'Everyone except Musa did not come to the class'

Semantics of *bien*

What the analysis should account for:

1. An associated noun is not necessary; compatibility with bare nouns and quantified NPs
2. Positive inference
   - *Only Musa came* ⇒ *Musa came*
3. Negative inference
   - *Only Musa came* ⇒ *Every individual different from Musa did not come*
4. Strong-NPI distribution

Semantics of *bien*

The exceptive denotes set subtraction (Gajewski 2013, Hirsch 2016)

(17) $[\![bien]\!] = \lambda x_e.\lambda y_e.\, x \neq y$

Semantics of *bien*

(18) *Musa* ***bien ca*** *v-ea-na.*
M. EXCP NEG AGR-come-PFV

'Only Musa came'

(19) $[\![\textit{Musa bien}]\!] = \lambda x_e.\, x \neq \textit{Musa}$

Semantics of *bien*

- *Bien* is compatible with bare nominals and with quantified noun phrases
- Chechen is an articleless language ⇒ noun phrases can be assumed to occur with covert existential quantifiers, assuming noun phrases in articleless languages to always be indefinite (Heim 2011 et seq.)
- Another option is type-shifting the exceptive phrase

Semantics of *bien*

(21) *Musa bien cwa 'a ca v-ea-na.*
M. EXCP one ADD NEG AGR-come-PFV

'Nobody but Musa came'

(22) $[\![\textit{cwa 'a}]\!] = \lambda P.\ \lambda Q.\ \exists x\ [P(x)\ \&\ Q(x)]$

(23) $[\![[\textit{Musa bien}]\ \textit{cwa 'a}]\!] = \lambda P.\ \exists x\ [\textit{Musa} \neq x\ \&\ P(x)]$

Semantics of *bien*

(24) *Musa bien desharxuo ca v-ea-na.*
M. EXCP student NEG AGR-come-PFV

'No student but Musa came'

(25) $[\![\textit{desharxuo}]\!] = \lambda x_e.\ \textit{student}(x)$

(26) $[\![\ [\ [\textit{Musa bien}]\ \textit{desharxuo}]\ \varnothing_{ex}\ ]\!] = \lambda P.\exists x\ [\textit{Musa} \neq x\ \&\ \textit{student}(x)\ \&\ P(x)]$

Semantics of *bien*

(27) *Musa* ***bien ca*** *v-ea-na.*
M. EXCP NEG AGR-come-PFV

'Only Musa came'

(28) $[\![[\textit{Musa bien}]\varnothing_{ex}]\!] = \lambda P.\exists x\,[\textit{Musa} \neq x \;\&\; P(x)]$

Deriving the positive inference

- Derived via exhaustification (Fox 2007 et seq.)
- The operator Exh takes a proposition p and the set of p's excludable (non-weaker) alternatives A, and asserts p while negating all of its non-weaker alternatives:

(29) $[\![\text{Exh}]\!](p)(A) \Leftrightarrow p \wedge \forall q \in A : \neg q$

Deriving the positive inference

(30) *Musa* ***bien ca*** *v-ea-na.*
M. EXCP NEG AGR-come-PFV

'Only Musa came'/'Nobody but Musa came'

Let {Musa, Zara, Aishat} be the relevant set of individuals

(31) Alternatives and their required truth values

a. true: $\neg[\exists x : [x \neq \mathit{Musa}] \wedge \mathit{came}(x)]$

b. false: $\neg[\exists x : [x \neq \mathit{Zara}] \wedge \mathit{came}(x)]$

c. false: $\neg[\exists x : [x \neq \mathit{Aishat}] \wedge \mathit{came}(x)]$

Deriving the positive inference

(32) Alternatives and their required truth values

a. true: $\neg[\exists x : [x \neq \mathit{Musa}] \wedge \mathit{came}(x)]$

b. false: $\neg[\exists x : [x \neq \mathit{Zara}] \wedge \mathit{came}(x)]$

c. false: $\neg[\exists x : [x \neq \mathit{Aishat}] \wedge \mathit{came}(x)]$

(33) a. $[\![\text{Exh}]\!](p)(A) \Leftrightarrow \neg[\exists x : [x \neq \mathit{Musa}] \wedge \mathit{came}(x)] \wedge [\exists x : [x \neq \mathit{Zara}] \wedge \mathit{came}(x)] \wedge [\exists x : [x \neq \mathit{Aishat}] \wedge \mathit{came}(x)]$

b. "There is no individual different from Musa who came AND it is not the case that there is no individual different from Zara who came AND it is not the case that there is no individual different from Aishat who came"

Deriving the NPI distribution

(34) **Musa bien v-ea-na.*
M. EXCP AGR-come-PFV

Int.: 'Somebody different from Musa came'

Relevant set of individuals: {Musa, Zara, Aishat}

(35) Contradictory truth-value requirements:

a. true: $\exists x : [x \neq \textit{Musa}] \wedge \textit{came}(x)$

b. false: $\exists x : [x \neq \textit{Zara}] \wedge \textit{came}(x)$

c. false: $\exists x : [x \neq \textit{Aishat}] \wedge \textit{came}(x)$

Deriving the NPI distribution

- Presuppositions create intervention effects for licencing strong NPIs (Homer 2008, Gajewski 2011, Chierchia 2013)
- To derive strong NPI distribution, exhaustification is applied not only to the assertion, but also to the presupposition (Chierchia 2013)
- This approach can be extended to Chechen, the ungrammaticality of *bien* in weak contexts can be derived in this way

Compatibility with other categories

- An existential quantifier is required to derive the inferences and the NPI-distribution of *bien*
- The analysis up to now states that *bien* does not have any quantificational force as a part of its lexical meaning. Existential quantification is provided by other elements
- In fact, *bien* can have a non-nominal associate (for similar cross-categorial data see O'Neill 2011 on French, Iatridou & Zeijlstra 2021 on Greek, Vilkuna 2021 on Finnish)
- Extending the analysis to associates of other syntactic categories and semantic types might be problematic

Compatibility with other categories

(36) Predicate focus

Hinca hwo-ga ladughu-sh ***bien*** *v-a-**c*** *suo.*
now 2SG-ALL listen-CVB.SIM EXCP AGR-AUX.PRES-NEG 1SG

'I am only [listening to you]$_F$ right now'

(37) Clausal associate

Ahw ghullaq da-hw ***bien**, as hwu-na*
2SG.ERG chore do-COND EXCP 1SG.ERG 2SG-DAT

*shokolad oecu-r j-a-**c**.*
chocolate buy-FUT.PTCP AGR-AUX.PRES-NEG

'I will buy you chocolate only [if you do the chore]$_F$'

Compatibility with other categories

In some cases, it is not clear what could provide the existential quantification

(38) *Suu-na* *hwo* *xeza-sh* ***bien*** *v-a-**c**,* *amma*
1SG-DAT 2SG hear-CVB.SIM EXCP AGR-AUX.PRES-NEG but
gu-sh *v-a-c.*
see-CVB.SIM AGR-AUX.PRES-NEG

'I cannot see you, I can only [hear]$_F$ you'

Compatibility with other categories

In some cases, it is not clear what could provide the existential quantification

(39) a. *Hwo lor v-u-i?*
2SG doctor AGR-be.PRES-Q

'Are you a doctor?'

b. *Hwo lor v-u-i aella* ***bien****, as* ***ca***
2SG doctor AGR-be.PRES-Q COMPL EXCP 1SG.ERG NEG
hwatti-na hwo-ga.
ask-PFV 2SG-ALL

'I only asked you [if you were a doctor]$_F$'

Bien-exceptives are not always clausal

- A possible solution: *bien*-exceptives are always derived from full clauses
- However, the *bien*-phrase in (40) does not seem to involve an elided clause

(40) *Musa bien (cwa 'a) ca v-ea-na.*
M. EXCP one ADD NEG AGR-come-PFV

'Nobody except Musa came'

(41) **Musa bien v-ea-na, cwa 'a ca v-ea-na.*
M. EXCP AGR-come-PFV one ADD NEG AGR-come-PFV

Int: 'Nobody came, except Musa came'

Bien as a propositional operator

- ONLY always semantically composes with the *v*P and operates on a proposition or the truth value of a sentence regardless of where it is realized (Hirsch 2017)
- The covert syntax of (42a) and (42b) is the same (43)

(42) a. *John only learned* ONE *language.*

b. *John learned only* ONE *language.*

(43) [*John*$_i$ [ONLY [t_i *learned* [*F* [*one language*]]]]]

Bien as a propositional operator

- ONLY presupposes that the prejacent proposition p is true and asserts that all non-weaker alternatives to p in *Alt* are false (44)
- If *bien* is a propositional operator, it asserts that there is a true alternative stronger than the focus alternative (45)
- After negation is applied, the assertion becomes identical to the assertion of ONLY

(44) $[\![only]\!]^{Alt} = \lambda p.\lambda w : p(w).\forall p' \in Alt\ [p'(w) \rightarrow p \subseteq p']$

(45) $[\![bien]\!]^{Alt} = \lambda p.\lambda w : p(w).\exists p' \in Alt\ [p \supset p' \rightarrow p'(w)]$

The split scope test

A modal can take scope between ONLY and a DP

(46) *John is required to learn only one$_F$ language.*

a. require > only: ”The requirement is that John learn one language and nothing else”

b. only > require: ”The only requirement is that John learn any one language”

The possibility of the ”only > require > one language” order indicates that ONLY does not directly compose with the DP (Hirsch 2017)

The split scope test

(47) *Shi* *xattar-na* ***bien*** *zhuop* *d-ala* *ca*
two question-DAT BIEN answer AGR-give NEG
d-iez-a *ahw.*
AGR-have.to-PRES 2SG.ERG

'You have to answer only two$_F$ questions'

(48) a. have to > NEG > *bien*, 2 questions: "The requirement is that you answer two questions and nothing else"

b. NEG > have to > *bien*, 2 questions: "The only requirement is that you answer two questions"

The split scope test

(49) *Shi* *xattar-na* ***bien*** *zhuop* *d-ala* *ca*
two question-DAT BIEN answer AGR-give NEG
d-iez-a *ahw.*
AGR-have.to-PRES 2SG.ERG

'You have to answer only two$_F$ questions'

(50) NEG > *bien* > have to > 2 questions

a. have to > 2 questions: "The only requirement is that you answer any two questions"

b. *bien* > have to: "The only requirement is that you answer any two questions"

Conclusion

- The analysis proposed in Sauerland & Yatsushiro 2023 can be adapted to capture some distributional properties of the Chechen focus particle *bien*
- *Bien*'s cross-categoriality poses a problem for this approach
- There is some evidence that *bien* does not directly compose with the focused element; rather, it has some properties of a propositional operator

Thank you!

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