

Non-conservative construals with percentages in Slavic and German

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Conservativity

Barwise and Cooper (1981); Keenan and Stavi (1986)

- (1) Q is **conservative** iff for all sets A and B , $Q(A)(B)$ is equivalent to $Q(A)(A \cap B)$
- (2) **{All/Some/Most/Five} girls** smiled.
 \Leftrightarrow **{All/Some/Most/Five} girls** are girls that smiled.
- (3) THE CONSERVATIVITY UNIVERSAL:
All extensional determiners in natural language denote **conservative** functions of type $\langle\langle e, t \rangle, \langle\langle e, t \rangle, t \rangle\rangle$.

The Conservativity Universal

Potential counterexamples

Westerståhl (1985); van Benthem (1986); de Mey (1991); Zuber (2004)

- ▶ *only*, Polish *sami* 'only, alone'
- ▶ *many*, *few*

- (4) a. **Only girls** smiled. \nleftrightarrow Only girls are girls that smiled.
b. **Many Scandinavians** have won the Nobel prize in literature.

Defense strategies

- ▶ show that a counterexample is not really a determiner (e.g. von Stechow, 1994, for *only*)
- ▶ reduce its meaning to a conservative core and an additional component responsible for the non-conservative reading (Herburger, 1997, 2000; Cohen, 2001; Romero, 2015; Penka, 2018)

Percentage quantifiers (%Qs)

Ahn and Sauerland (2015a,b, 2017); Sauerland and Pasternak (in revision)

► Conservative and non-conservative construals

- (5) a. MIT hired 30% of the women last year. C
b. MIT hired 30% women_F last year. NC
 ~ 30% of the people that MIT hired were women.

Intuition (crude/informal):

- C Q(A)(B) ~ 30%(the women)(MIT hired)
NC Q(B)(A) ~ 30%(MIT hired)(women)

► Subject-object asymmetry in some languages:

e.g. English vs. German

- (6) a. *30% women work here.
b. 30% Frauen_F arbeiten hier.
 30%.NOM women.NOM work here
 '30% of the people that work here are women.'

Percentages: Cross-linguistic generalizations

Ahn and Sauerland (2015b, 2017)

Table: Marking of non-conservative (vs. conservative) construals

Languages	Morphophonological marking	Subject
English	focus, case (<i>of</i>), definiteness	no
German, Georgian, Greek	focus, case, (definiteness)	yes
French, Italian	focus, definiteness	(yes)
Korean	focus, case, definiteness, overt movement	yes
Mandarin	focus	no

The analyses the authors spell out (for Korean and German):

- ▶ aim at capturing the morphophonological properties (focus, definiteness, case)
e.g. The non-conservative construal involves focus sensitivity.
- ▶ No account of the subject-object asymmetry (and also no detailed discussion)

Focus sensitivity: e.g. German

Sauerland and Pasternak (in revision)

- (7) a. 30% [westfälische Studierende]_F arbeiten hier.
30%.NOM Westphalian.NOM students.NOM work here
'30% of the workers here are Westphalian students.'
- b. 30% [westfälische]_F Studierende arbeiten hier.
30%.NOM Westphalian.NOM students.NOM work here
'30% of the student workers here are Westphalian.'

Questions raised by Sauerland & Co.

- ① How do languages without definiteness marking differentiate between C and NC construals? Let's look at Slavic!
 - ② Intuition for German:
 - ▶ With intransitives, the difference between C and NC correlates with a word order difference (with 'neutral' **stress**/word order).
- (8)
- a. 30% der Studierenden arbeiten bei **dm**.
30%.NOM the.GEN students.GEN work at dm
'30% of the students work at dm.'
 - b. Bei dm arbeiten 30% Studierende.
at dm work 30%.NOM students.NOM
'30% of the employees at dm are students.'
- ▶ None of Sauerland & Co.'s intransitive examples involve neutral word order and neutral stress, their account is solely based on information-structurally marked examples.
- ③ What kind of focus? Is it always crucial for NC construals?

Revisiting the subject-object asymmetry

- ▶ With intransitives, there seems to be a difference in predication: the “subject” of predication is the location, rather than the constituent in nominative case.
 - ▶ Leaving out the location ⇒ ungrammaticality
 - ▶ Changing the structure ⇒ grammatical counterparts in English

- (9) a. *30% Studierende arbeiten.
30%.NOM students.NOM work
- b. There are 30% students working *(at dm/here).

⇒ **Hypothesis:** The subject-object asymmetry is found in languages with rigid word order (e.g. English) but not in languages with ‘free word order’ (e.g. German, Slavic).

Goals of this talk

- ① To corroborate our intuition about German
- ② To explore C vs. NC construals in Slavic languages with and without definiteness marking
- ③ To argue that:
 - ▶ NC %Qs are not focus-sensitive.
 - ▶ C and NC readings involve different predicational structures.

This also accounts for the subject-object asymmetry.

C vs. NC in Slavic

C vs. NC in Slavic

3 patterns

- 1 No formal distinction: 50% women.GEN
▶ Russian, BCMS, Slovenian(, Ukrainian)
- 2 No formal distinction: 50% women.GEN
+ additional partitive: 50% P women.CASE-OF-P
▶ Polish, Czech, Slovak
- 3 Case ('of'), definiteness distinction:
50% women vs. 50% of women.DEF
▶ Bulgarian, Macedonian

C vs. NC in Slavic

① e.g. Russian / Slovenian

- (10) pjat'desjat procentov ženščin / pedeset posto žena
fifty percents.GEN women.GEN fifty percent women.GEN

② e.g. Czech / Slovak

- (11) padesát procent žen / päťdesiat percent žien
fifty percent women.GEN fifty percent women.GEN

- (12) padesát procent z žen / päťdesiat percent zo žien
fifty percent out-of women.GEN fifty percent out women

③ e.g. Bulgarian / Macedonian

- (13) petdeset procenta ženi / pedeset procenti ženi
fifty percent women fifty percent women

- (14) petdeset procenta ot ženite / pedeset procenti od ženite
fifty percent of women.DEF fifty percent of women.DEF

Intuitions for Polish

- ▶ With intransitives, preverbal %Qs only get a C reading.
 - NC requires postverbal %Qs with intransitives.
 - cp. German: NC prefers sentence-final %Qs with intransitives.
- ⇒ The postverbal/sentence-final preference/requirement was confirmed by corpus data (see appendix).

- ▶ Partitives only give rise to C readings.
- ⇒ This was confirmed by other native speakers.
(We set partitives aside for now.)

Native speaker judgments

Data investigation

- ▶ %Qs as subjects of intransitives vs. objects of transitives
- ▶ Varying the word order: preverbal/sentence-initial vs. postverbal/sentence-final %Q
- ▶ Judged in scenarios that favor C vs. NC readings
- ▶ German; Czech, Polish, Slovak, Russian, BCMS, Slovenian; Bulgarian, Macedonian
- ▶ 4-7 speakers per languages (Slovak: 1)

Intransitive scenarios

▶ Conservative

- (15) SCENARIO: The company A is located not far from a village that is otherwise quite remote. The company employs half of the women from that village.

▶ Non-conservative

- (16) SCENARIO: The company A is located not far from a village that is otherwise quite remote. A few people from the village work there. The company observes gender equality and half of their employees are women.

Intransitive test items

- ▶ %Q in preverbal/sentence-initial position

(17) It is interesting that [fifty percent](.NOM) (of the) women work at (the) company A.

- ▶ %Q in postverbal/sentence-final position

(18) It is interesting that at (the) company A work [fifty percent](.NOM) (of the) women.

Transitive scenarios

▶ Conservative

- (19) SCENARIO: The two companies A and B are not far from a village that is otherwise quite remote. Therefore, A and B are the main employers for the village inhabitants. While most of the men from the village work at A, half of the women from the village work at B.

▶ Non-conservative

- (20) SCENARIO: The two rivaling companies A and B have about the same amount of employees. While most of the employees at A are men/male, half of the employees of B are women/female.

Transitive test items

- ▶ %Q in preverbal/sentence-initial position

(21) It is interesting that [fifty percent](.ACC) (of the) women
employs [(the) company A](.NOM).

- ▶ %Q in postverbal/sentence-final position

(22) It is interesting that [(the) company A](.NOM) employs [fifty
percent](.ACC) (of the) women.

Methodology

- ▶ Tested in two batches, several days apart:
 - ▶ NC scenarios
 - ▶ C scenarios
- ▶ Test items embedded under 'It is interesting'
 - ▶ Hope that this would result in neutral word order/prosody (as in: the sheer fact is interesting)
- ▶ Transitive scenarios built in a contrast between companies, initially to facilitate preverbal objects

German: intransitive, bare

(tested only in the NC scenario)

▶ Sentence-initial

- (23) Es ist interessant, dass **fünfzig Prozent Frauen** bei
it is interesting that fifty.NOM percent.NOM women.NOM at
der Firma Kaloma arbeiten.
the company Kaloma work

▶ Sentence-final / lower position (German SOV: still preverbal)

- (24) Es ist interessant, dass bei der Firma Kaloma **fünfzig**
it is interesting that at the company Kaloma fifty.NOM
Prozent Frauen arbeiten.
percent.NOM women.NOM work

'It is interesting that 50% of the workers at the company Kaloma are women.'

German: intransitive, definite

(tested only in the C scenario)

► Sentence-initial

- (25) Es ist interessant, dass **fünfzig** **Prozent** **der**
it is interesting that fifty.NOM percent.NOM the.GEN
Frauen bei der Firma Kaloma arbeiten.
women.GEN at the company Kaloma work

► Sentence-final

- (26) Es ist interessant, dass bei der Firma Kaloma **fünfzig**
it is interesting that at the company Kaloma fifty.NOM
Prozent **der** **Frauen** arbeiten.
percent.NOM the.GEN women.GEN work

'It is interesting that 50% of the women work at the company Kaloma.'

German: transitive, bare

(tested only in the NC scenario)

► Sentence-initial

- (27) Es ist interessant, dass **fünfzig Prozent Frauen**
it is interesting that fifty.ACC percent.ACC women.ACC
die Firma Ketara beschäftigt.
the.NOM company.NOM Ketara.NOM employs

► Sentence-final

- (28) Es ist interessant, dass die Firma Ketara
it is interesting that the.NOM company.NOM Ketara.NOM
fünfzig Prozent Frauen beschäftigt.
fifty.ACC percent.ACC women.ACC employs

'It is interesting that the company Ketara employs 50% women.'

German: transitive, definite

(tested only in the C scenario)

► Sentence-initial

- (29) Es ist interessant, dass **fünfzig Prozent** **der**
it is interesting that fifty.ACC percent.ACC the.GEN
Frauen die Firma **Ketara** beschäftigt.
women.GEN the.NOM company.NOM Ketara.NOM employs

► Sentence-final

- (30) Es ist interessant, dass die Firma **Ketara**
it is interesting that the.NOM company.NOM Ketara.NOM
fünfzig Prozent **der** **Frauen** beschäftigt.
fifty.ACC percent.ACC the.GEN women.GEN employs

'It is interesting that the company Ketara employs 50% of the women.'

Pattern 1 (e.g. Russian): intransitive

(tested in both C and NC scenarios)

► Preverbal

- (31) Interesno, čto **pjat'desjat procentov** **ženščin**
interesting that fifty.NOM percent.GEN.PL women.GEN
rabotajut v kompanii Kaloma.
work in company Kaloma

► Postverbal

- (32) Interesno, čto v kompanii Kaloma rabotajut **pjat'desjat**
interesting that in company Kaloma work fifty.NOM
procentov **ženščin.**
percent.GEN.PL women.GEN

Similar in all Slavic languages without definiteness marking (Czech, Polish, Slovak, BCMS, Slovenian); see appendix

Pattern 1 (e.g. Russian): transitive

(tested in both C and NC scenarios)

► Preverbal

- (33) Interesno, čto pjat'desjat procentov ženščin deržit
interesting that fifty.ACC percent.GEN.PL women.GEN holds
na službe kompanija Ketara.
on service company.NOM Ketara.NOM

► Postverbal

- (34) Interesno, čto kompanija Ketara deržit na službe
interesting that company.NOM Ketara.NOM holds on service
pjat'desjat procentov ženščin.
fifty.ACC percent.GEN.PL women.GEN

Similar in all Slavic languages without definiteness marking (Czech, Polish, Slovak, BCMS, Slovenian); see appendix

Pattern 2 (e.g. Czech): partitive, intransitive

(tested only in the NC scenario)

► Preverbal

- (35) Je zajímavé, že padesát procent z žen pracuje
is interesting that fifty.NOM percent from women.GEN works
ve společnosti Spedex.
in company.LOC Spedex

► Postverbal

- (36) Je zajímavé, že ve společnosti Spedex pracuje padesát
is interesting that in company.LOC Spedex works fifty.NOM
procent z žen.
percent from women.GEN

Similar in all Slavic languages without definiteness marking that also have partitives (Polish, Slovak); see appendix

Pattern 3 (e.g. Macedonian): intransitive, bare

(tested only in the NC scenario)

► Preverbal

- (37) Interesno e što **pedeset procenti ženi** rabotat vo firmata
interesting is that fifty percent women work in firm.DEF
Kaloma.
Kaloma

► Postverbal

- (38) Interesno e što vo firmata Kaloma rabotat **pedeset procenti**
interesting is that in firm.DEF Kaloma work fifty percent
ženi.
women

'It is interesting that 50% of the people working at the company Kaloma are women.'

Similar in Bulgarian; see appendix

Pattern 3 (e.g. Macedonian): intransitive, definite

(tested only in the C scenario)

► Preverbal

- (39) Interesno e što **pedeset procenti od ženite** rabotat vo
interesting is that fifty percent of women.DEF work in
firmata Kaloma.
firm.DEF Kaloma

► Postverbal

- (40) Interesno e što vo firmata Kaloma rabotat **pedeset procenti**
interesting is that in firm.DEF Kaloma work fifty percent
od ženite.
of women.DEF

'It is interesting that 50% of the women work at the company Kaloma.'

Similar in Bulgarian; see appendix

Pattern 3 (Macedonian): transitive, bare

(tested only in the NC scenario)

► Preverbal

- (41) Interesno e što **pedeset procenti ženi** vrabotuva firmata
interesting is that fifty percent women employs firm.DEF
Ketara.
Ketara

► Postverbal

- (42) Interesno e što firmata Ketara vrabotuva **pedeset procenti**
interesting is that firm.DEF Ketara employs fifty percent
ženi.
women

'It is interesting that the company Ketara employs 50% women.'

Similar in Bulgarian; see appendix

Pattern 3 (e.g. Macedonian): transitive, definite

(tested only in the C scenario)

► Preverbal

- (43) Interesno e što **pedeset procenti od ženite** vработува
interesting is that fifty percent of women.DEF employs
firmata Ketara.
firm.DEF Ketara

► Postverbal

- (44) Interesno e što firmata Ketara vработува **pedeset procenti**
interesting is that firm.DEF Ketara employs fifty percent
od ženite.
of women.DEF

'It is interesting that the company Ketara employs 50% of the women.'

Similar in Bulgarian; see appendix

Pattern 3+ (Macedonian): transitive, definite, with clitic

(tested only in the C scenario)

► Preverbal

- (45) Interesno e što pedeset procenti od ženite gi
interesting is that fifty percent of women.DEF CL
vrabotuva firmata Ketara.
employs firm.DEF Ketara

► Postverbal

- (46) Interesno e što firmata Ketara gi vrabotuva pedeset
interesting is that firm.DEF Ketara CL employs fifty
procenti od ženite.
percent of women.DEF

'It is interesting that the company Ketara employs 50% of the women.'

(no such clitic in Bulgarian)

Results for German & discussion

Table: Results for German

	INTRANSITIVE		TRANSITIVE	
	C	NC	C	NC
HIGH	✓	very marked	slightly marked	highly marked
LOW	marked	✓	✓	✓

(Background assumption: German is SOV + V2)

- ▶ No categorical judgments
- ▶ NC best in a lower position: PPSV; SOV
- ▶ C best with 'canonical word order': SPPV, SOV
- ▶ Transitives: Sentence-initial %Q requires explicit contrast/surprise/*only* (especially with NC); we'll get back to this.

Results for Macedonian and Bulgarian

Table: Results for Macedonian

	INTRANSITIVE		TRANSITIVE	
	C	NC	C	NC
PREV.	✓	#	✓ w/clitic (best)	#
POSTV.	marked	✓	✓ w/o clitic	✓

Table: Results for Bulgarian

	INTRANSITIVE		TRANSITIVE	
	C	NC	C	NC
PREV.	✓	very marked	marked/#	#
POSTV.	✓/slightly marked	✓	✓	✓

Macedonian and Bulgarian: Discussion

- ▶ Macedonian: NC requires postverbal position categorically
(not just a tendency, as in German)
Transitive NC: Additional remarks about explicit contrasts/
surprise improving on preverbal %Q
- ▶ Bulgarian:
 - ▶ Transitive NC requires postverbal position (~ Macedonian)
 - ▶ Intransitive NC prefers postverbal position (~ German)
- ▶ Transitive C:
 - ▶ Bulgarian: like German; preverbal ok with passives
 - ▶ Macedonian: depends on the clitic, best preverbal
(unlike German)

Results for Polish, Czech, Slovak & discussion

Table: Results for Polish, Czech, Slovak

	INTRANSITIVE		TRANSITIVE	
	C	NC	C	NC
PREVERBAL	✓	#	✓	#
POSTVERBAL	#	✓	marked	✓

- ▶ Categorical pattern:
 - ▶ NC requires postverbal %Q: PPV**S** & SV**O** (~ Macedonian)
 - ▶ C requires preverbal %Q in intransitives: **SVPP**
(preverbal NC %Q object facilitated by explicit contrasts)
- ▶ C prefers preverbal %Q in transitives: **OVS**
- ▶ Partitives (only tested in NC intransitives): Unacceptable (we did not further explore partitives)

Similar results in Russian, BCMS, Slovenian

Table: Results for Russian

	INTRANSITIVE		TRANSITIVE	
	C	NC	C	NC
PREVERBAL	✓	#	inconclusive/✓	#
POSTVERBAL	#	✓	inconclusive	✓

Table: Results for Serbian (BCMS)

	INTRANSITIVE		TRANSITIVE	
	C	NC	C	NC
PREVERBAL	✓	# (ok w/ CT for 2)	✓	# (ok for 1 ¹)
POSTVERBAL	#	✓	marked	✓

Table: Results for Slovenian

	INTRANSITIVE		TRANSITIVE	
	C	NC	C	NC
PREVERBAL	✓	#	✓	#/dispreferred
POSTVERBAL	marked	✓	marked	✓

¹ One Serbian speaker preferred to express NC differently, so they might only have C construals (to be explored).

Overall results: generalizations

- ▶ German:
 - ▶ NC prefers low %Q: PPSV; SOV
 - ▶ C prefers 'canonical word order': SPPV, SOV
- ▶ Slavic languages without definiteness marking:
 - ▶ NC requires postverbal %Q: PPVS, SVO
 - ▶ C requires (intrans.) or prefers (trans.) preverbal %Q: SVPP, OVS
- ▶ Slavic languages with definiteness marking:
 - ▶ Macedonian more or less like Slavic languages w/o def.
 - ▶ Bulgarian closer to German
- ▶ In general: Contrasts(/surprisal) improve on marked or dispreferred word orders.

The neutral cases, e.g. German

▶ Neutral stress: nuclear stress rule + integration

▶ Neutral word order:

C: SVPP, SOV / with V2: SVO

NC: PPVS, SOV / with V2: SVO

(47) a. 50% der Frauen arbeiten bei Kaloma.
50%.NOM the.GEN women.GEN work at Kaloma
'50% of the women work at Kaloma.'

b. Bei Kaloma arbeiten 50% Frauen.
at Kaloma work 30%.NOM women.NOM
'50% of the employees at Kaloma are women.'

(48) a. Ketara beschäftigt 50% der Frauen.
Ketara.NOM employs 50%.ACC the.GEN women.GEN
'Ketara employs 50% of the women.'

b. Ketara beschäftigt 50% Frauen.
Ketara.NOM employs 50%.ACC women.ACC
'Ketara employs 50% women.'

► Intransitive: **SVPP** vs. **PPVS**

- (49) a. **50%** **kobiet** pracuje w firmie **Ekspol**.
50%.NOM women.GEN works in company.LOC Ekspol
'50% of the women work at the company Ekspol.' C
- b. W firmie Ekspol pracuje **50%** **kobiet**.
in company.LOC Ekspol works 50%.NOM women.GEN
'50% of the employees at the company Ekspol are women.' NC

► Transitive: **OVS** vs. **SVO**

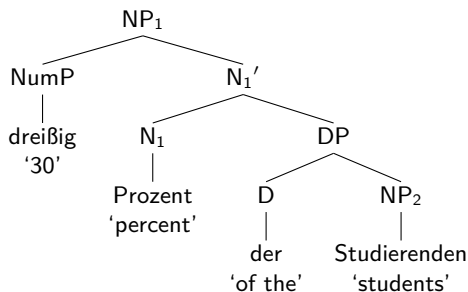
- (50) a. **50%** **kobiet** zatrudnia firma **Ekspol**.
50%.ACC women.GEN employs company.NOM Ekspol
'The company Ekspol employs 50% of the women.' C
- b. Firma Ekspol zatrudnia **50%** **kobiet**.
company.NOM Ekspol employs 50%.ACC women.GEN
'The company Ekspol employs 50% women.' NC

Back to Sauerland & Co.

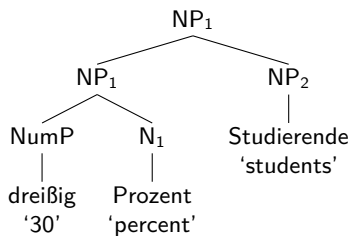
Syntactic analysis in Sauerland and Pasternak (in revision)

similar in Ahn and Sauerland (2015a,b, 2017)

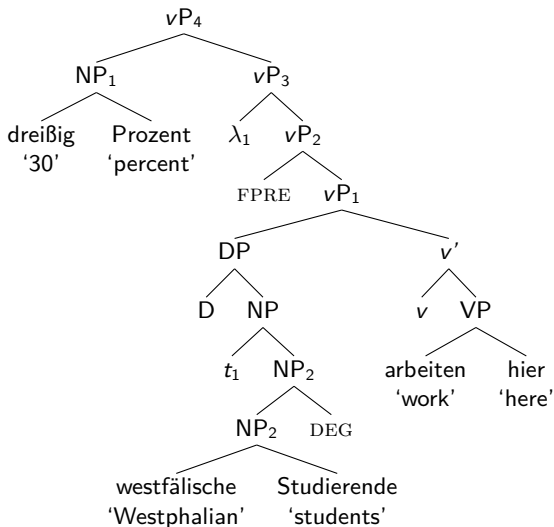
Conservative



Non-conservative



Complete non-conservative syntax (S&P)



Non-conservative semantic analysis (S&P): Informally

- ▶ NP₁ (30%) is a degree quantifier [also under C reading]
NP₁ QRs, leaving a degree-denoting trace
- ▶ Focus generates a set of alternatives (cf. Rooth, 1985, 1992)
- ▶ The %Q operates on the presupposition of this set [FPRE]

- (51) 30% [westfälische Studierende]_F arbeiten hier.
30% Westphalian students work here
~ 30% of the individuals working here are Westphalian students working here.
- (52) 30% [westfälische]_F Studierende arbeiten hier.
30% Westphalian students work here
~ 30% of the students working here are Westphalian students working here.

Non-conservative semantic analysis (S&P): Formally

$$(53) \quad \llbracket \text{Prozent} \rrbracket = \lambda n \lambda D. \text{MAX}(D) \geq \frac{n}{100} \times \text{MAX}(\text{DOM}(D))$$

$$(54) \quad \llbracket \text{DEG} \rrbracket^c = \lambda P \lambda d \lambda x. P(x) \wedge \mu^c(x) \geq d$$

$$(55) \quad \begin{aligned} \llbracket [D \ t_1 \ \text{[westfälische Studierende]}_F \ \text{DEG arbeiten hier}] \rrbracket^{g,c} &= \\ &= \llbracket [D \ t_1 \ \text{[westfälische]}_F \ \text{Studierende DEG arbeiten hier}] \rrbracket^{g,c} \approx \\ &\approx \text{at least } g(1)\text{-many Westphalian students work here} \end{aligned}$$

$$(56) \quad \begin{aligned} \llbracket [D \ t_1 \ \text{[westfälische Studierende]}_F \ \text{DEG arbeiten hier}] \rrbracket_f^{g,c} &\approx \\ \approx \left\{ \begin{array}{l} \text{at least } g(1)\text{-many Westphalian students work here,} \\ \text{at least } g(1)\text{-many Macedonians work here,} \\ \text{at least } g(1)\text{-many individuals work here,} \\ \vdots \end{array} \right\} \end{aligned}$$

$$(57) \quad \begin{aligned} \llbracket \text{FPRE X} \rrbracket \text{ is defined if } \bigvee \llbracket \text{X} \rrbracket_f \text{ is true;} \\ \text{where defined, } \llbracket \text{FPRE X} \rrbracket = \llbracket \text{X} \rrbracket \end{aligned}$$

(FPRE: Focus-derived presupposition)

Non-conservative semantic analysis (S&P): Formally

- ▶ The arguments of 30% after QR:

(58) (30%) [westfälische Studierende]_F arbeiten hier.
(‘30% of the people that work here are Westphalian students.’)

$\llbracket \lambda_1 \text{ FPRE } D \ t_1 \text{ [westfälische Studierende]}_F \text{ DEG arbeiten hier} \rrbracket^c =$
 $= \lambda d : \text{at least } d\text{-many individuals work here .}$
at least d -many Westphalian students work here (henceforth D_α)

(59) (30%) [westfälische]_F Studierende arbeiten hier.
(‘30% of the students that work here are Westphalian.’)

$\llbracket \lambda_1 \text{ FPRE } D \ t_1 \text{ [westfälische]}_F \text{ Studierende DEG arbeiten hier} \rrbracket^c =$
 $= \lambda d : \text{at least } d\text{-many students work here .}$
at least d -many Westphalian students work here (henceforth D_β)

- ▶ End result for, e.g., (59):

$\llbracket \text{dreißig Prozent [westfälische]}_F \text{ Studierende DEG arbeiten hier} \rrbracket^c =$
 $= \text{MAX}(D_\beta) \geq \frac{30}{100} \times \text{MAX}(\text{DOM}(D_\beta))$

Doubts about Sauerland & Co.'s analysis

- ▶ Crucial assumption: Focus within NP₂
- ▶ What happens in cases with 'neutral' stress / word order?
Does it make sense to talk about focus sensitivity here?
- ▶ If NC %Qs are focus-sensitive, shouldn't focus then be somewhere in the NP (e.g. 'Westphalian' or 'students')?
What happens if it is elsewhere?

What about the neutral cases?

- ▶ Let's assume wide focus:

(60) [Bei Pirapo arbeiten 50% Frauen]_F.
at Pirapo work 50%.NOM women.NOM

- ▶ Essential parts of an S&P analysis of (60):

(61) $\llbracket [\text{bei Pirapo arbeiten } D \ t_1 \ \text{Frauen } \text{DEG}]_F \rrbracket_f^{g,c} \approx$
 $\approx \left\{ \begin{array}{l} \lambda w. \text{ at least } g(1)\text{-many women work at Pirapo in } w, \\ \lambda w. \text{ at least } g(1)\text{-many forests burn in Slovakia in } w, \\ \lambda w. \text{ at least } g(1)\text{-many cats walk on Jasna's bed in } w, \\ \vdots \end{array} \right\}$

(62) $\lambda w. \text{ at least } g(1)\text{-many individuals are involved in some eventuality in } w$

What about the neutral cases?

- (63) $\llbracket \lambda_1 \text{ FPRE [bei Pirapo arbeiten D } t_1 \text{ Frauen DEG]}_F \rrbracket^c \approx$
 $\approx \lambda d$: at least d -many individuals are involved in some
eventuality in $\mathcal{@}$.
at least d -many women work at Pirapo in $\mathcal{@}$ (henceforth D_p)
- (64) $\llbracket 50\% \text{ [bei Pirapo arbeiten D } t_1 \text{ Frauen DEG]}_F \rrbracket^c =$
 $= \text{MAX}(D_p) \geq \frac{50}{100} \times \text{MAX}(\text{DOM}(D_p))$

⇒ **Wrong prediction:**

In a world with 1000 individuals involved in some eventuality, 100 of which workers at Pirapo and 50 of these women, the sentence should intuitively be true but it comes out as false.

Focus elsewhere

- ▶ Examples by informants to improve on preverbal NC %Qs:

(65) Je zajímavé, že **padesát procent žen** zaměstnává
is interesting that fifty.ACC percent women.GEN employs
[společnost **Expol**]_{CF}, a **nikoliv Bustrans**.
company.NOM Expol and not Bustrans

CZECH

(66) **50% Frauen** beschäftigt **nur** [die Firma
50%.ACC women.ACC employs only the.NOM company.NOM
Pirapo]_F.
Pirapo.NOM

'It is only the company Pirapo that employs 50% women.'

GERMAN

(further examples, also from corpora, in the appendix)

What kind of focus sensitivity?

- ▶ Beaver and Clark (2008): 3 types of focus sensitivity
 - ▶ Lexical association with focus (conventional), e.g. *only*, *also*
 - ▶ Free association, e.g. *always*, superlatives
 - ▶ Quasi association, e.g. *even*, negation

Q What if we have a double focus structure with our 'focus elsewhere' cases?

e.g. (67) (from Wold, 1996)

(67) John also only introduced [**Sue**]_F to [**Bill**]_F.

- ▶ Our cases are different: only one stress/accent (the focus one), but no stress on 'women'
- ⇒ NC %Qs do not behave like lexically associating elements

What kind of focus sensitivity?

Q What about free association?

- (68) Marta **isst** immer Kartoffeln. 'Marta always [eats]_F potatoes.'
Marta eats always potatoes
~ In all situations that involve M. and potatoes she eats them.

▶ Let's add 'another' focus on a different element:

- (69) a. Marta **isst** immer [Kart**o**ffeln]_{CF} und nicht Reis.
Marta eats always potatoes and not rice
b. Marta **isst** immer nur [Kart**o**ffeln]_F.
Marta eats always only potatoes
~ In all situations that involve Marta eating she eats potatoes
(and not rice / nothing else).

▶ The focus that 'always' associates with necessarily changes to the 'other' focus

▶ In contrast, nothing changes with NC readings.

⇒ NC %Qs do not behave like freely associating elements

Towards an alternative proposal

What could then be the difference between C and NC?

Different possible interpretations, given what we know about word order variation in (East and West) Slavic (and in German)
(e.g. Partee and Borschev, 2004; Geist, 2010; Ionin and Luchkina, 2015; Borik, 2016; Šimík and Wierzba, 2017; Antonyuk, 2019; Šimík and Demian, 2020; Seres and Borik, to appear; Jasinskaja and Šimík, to appear)

- 1 (In)definiteness
- 2 Given vs. new
- 3 Preference for surface scope readings
- 4 Topic vs. comment
- 5 Difference in predication: %Qs have to appear VP-internally (to form part of the predicate)

(In)definiteness? Givenness? Scope? Topic?

- ▶ Tendency: preverbal **definite** bare nominals vs. postverbal **(in)definite** bare nominals
 - ▶ 'the company' is always definite
 - ▶ in C: 'the women' is definite; in NC: 'women' is a **predicate**
 - ▶ BUT: There is also **50%** (not necessarily bare)
- ▶ **Given precedes new**
Our intention was to have **everything be new** (as in: Hey, listen to this new interesting fact!)
- ▶ **Preference for surface scope**
 - ▶ NC %Qs appear low/sentence-final; but if they take scope and this should be reflected on the surface they should be higher.
 - ▶ BUT: If they are **not quantifiers but part of the the predicate** and have to remain within the VP, this could work.
- ▶ **Topic vs. comment:** Topics tend to be sentence-initial
→ The **location** (in intransitives) is an **aboutness topic**?

Further paths to explore

Are there parallels to other empirical domains?

e.g. 'Adverbial' readings of temporal frequency adjectives with non-event nouns (Gehrke and McNally, 2014)

Similar conditions: only with objects, only with bare plurals

- (73) She wrote me **frequent** letters.
~ She **frequently** wrote me letters.

e.g. German *lauter* (Eckardt, 2002, 2006)

- ▶ originally an uninflected adjective with the meaning 'pure'
- ▶ uses similar to 'only', 'many'
- ▶ if it were a Q, it would give rise to non-conservative readings
- ▶ Eckardt instead: property analysis

Similar conditions: only with bare plurals, (all of Eckardt's examples) with sentence-initial PP/postverbal S or with 'have'

Further paths to explore

Examples with *lauter* (after Eckardt, 2006, 203):

- (74) Die Maiers haben **lauter** Töchter.
the Maier-family have LAUTER daughters
'The Maier family have only daughters (and quite a few).'
- (75) Unter dem Baum wachsen **lauter** Hallimasche.
under the tree grow LAUTER honey-fungi
'There are a lot of honey fungi growing under the tree.'

Revisiting the subject-object asymmetry

English vs. German vs. Slavic (with/without definiteness)

- ▶ Rigid word order in English: If %Q is part of the predicate (as in NC), it cannot appear sentence-initially
→ Subject-object asymmetry (can be circumvented with 'there are')
- ▶ Freer word order in German:
 - ▶ Unlike English it can just reverse the order of PP and S (like Slavic)
 - ▶ Unlike Slavic: Still preference for SOV (+V2) with transitives; diversion from it is quite marked
- ▶ Even freer word order in Slavic languages

Conclusion and outlook

Conclusion

- ▶ C vs. NC construals in German, Slavic
- ▶ Correlation with differences in word order and in predicational structure
- ▶ Critical evaluation of a previous proposal
- ▶ Exploiting well-known differences between 'free' vs. rigid order languages accounts for the subject-object asymmetry.
- ▶ New insights into the interaction of quantification and information structure in general

Open issues/future work

- ▶ Large-scale, controlled experiments, also to control for prosody
- ▶ Quantitative corpus work, also with parallel corpora
- ▶ %Qs in PPs, datives, adjuncts
- ▶ Can there be anything else instead of LOC (e.g. temporal PP)?
- ▶ Different types of nominals in the slot of 'women' (e.g. fake mass nouns and others)
- ▶ With adjectives
- ▶ Other quantifiers (fractions, *many* etc.)
- ▶ Agreement (relevant for German)
- ▶ Macedonian/Bulgarian: Semantics/pragmatics of definiteness
- ▶ Macedonian: Role of the clitic

One more thing

We have taken for granted that in languages with definiteness marking, NC vs. C construals correlate with bare vs. definite NPs.

BUT 1 example from linguist, German – English:

- (76) 60 Prozent Frauen in der Kommune können
60.NOM percent.NOM women.NOM in the commune can
weder lesen noch schreiben.
neither read nor write
- (77) 60 percent of women in the community are illiterate.

→ feels like C with indefinite-specific 'women'

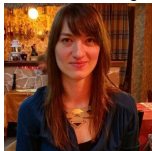
Thanks!

Thanks for help with the translations

Daria Seres



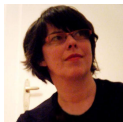
Jovana Gajić



Lucia Vlášková



Markéta Sergejko



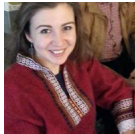
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Appendix

Appendix: All test items

German: intransitive, bare

► sentence-initial

- (78) Es ist interessant, dass fünfzig Prozent Frauen bei
it is interesting that fifty.NOM percent.NOM women.NOM at
der Firma Kaloma arbeiten.
the company Kaloma work

► sentence-final

- (79) Es ist interessant, dass bei der Firma Kaloma fünfzig
it is interesting that at the company Kaloma fifty.NOM
Prozent Frauen arbeiten.
percent.NOM women.NOM work
'It is interesting that 50% of the workers at the company
Kaloma are women.'

Appendix: All test items

German: intransitive, definite

▶ sentence-initial

- (80) Es ist interessant, dass fünfzig Prozent der
it is interesting that fifty.NOM percent.NOM the.GEN
Frauen bei der Firma Kaloma arbeiten.
women.GEN at the company Kaloma work

▶ sentence-final

- (81) Es ist interessant, dass bei der Firma Kaloma fünfzig
it is interesting that at the company Kaloma fifty.NOM
Prozent der Frauen arbeiten.
percent.NOM the.GEN women.GEN work
'It is interesting that 50% of the women work at the company
Kaloma.'

Appendix: All test items

German: transitive, bare

▶ sentence-final

- (82) Es ist interessant, dass die Firma Ketara
it is interesting that the.NOM company.NOM Ketara.NOM
fünfzig Prozent Frauen beschäftigt.
fifty.ACC percent.ACC women.ACC employs

▶ sentence-initial

- (83) Es ist interessant, dass fünfzig Prozent Frauen
it is interesting that fifty.ACC percent.ACC women.ACC
die Firma Ketara beschäftigt.
the.NOM company.NOM Ketara.NOM employs
'It is interesting that the company Ketara employs 50% women.'

Appendix: All test items

German: transitive, definite

► sentence-final

- (84) Es ist interessant, dass die Firma Ketara
it is interesting that the.NOM company.NOM Ketara.NOM
fünfzig Prozent der Frauen beschäftigt.
fifty.ACC percent.ACC the.GEN women.GEN employs

► sentence-initial

- (85) Es ist interessant, dass fünfzig Prozent der
it is interesting that fifty.ACC percent.ACC the.GEN
Frauen die Firma Ketara beschäftigt.
women.GEN the.NOM company.NOM Ketara.NOM employs
'It is interesting that the company Ketara employs 50% of the
women.'

Appendix: All test items

German: intransitive, bare

▶ sentence-initial

- (86) Es ist interessant, dass fünfzig Prozent Frauen bei
it is interesting that fifty.NOM percent.NOM women.NOM at
der Firma Kaloma arbeiten.
the company Kaloma work

▶ sentence-final

- (87) Es ist interessant, dass bei der Firma Kaloma fünfzig
it is interesting that at the company Kaloma fifty.NOM
Prozent Frauen arbeiten.
percent.NOM women.NOM work
'It is interesting that 50% of the workers at the company
Kaloma are women.'

Appendix: All test items

German: intransitive, definite

▶ sentence-initial

- (88) Es ist interessant, dass fünfzig Prozent der
it is interesting that fifty.NOM percent.NOM the.GEN
Frauen bei der Firma Kaloma arbeiten.
women.GEN at the company Kaloma work

▶ sentence-final

- (89) Es ist interessant, dass bei der Firma Kaloma fünfzig
it is interesting that at the company Kaloma fifty.NOM
Prozent der Frauen arbeiten.
percent.NOM the.GEN women.GEN work
'It is interesting that 50% of the women work at the company
Kaloma.'

Appendix: All test items

German: transitive, bare

▶ sentence-final

- (90) Es ist interessant, dass die Firma Ketara
it is interesting that the.NOM company.NOM Ketara.NOM
fünfzig Prozent Frauen beschäftigt.
fifty.ACC percent.ACC women.ACC employs

▶ sentence-initial

- (91) Es ist interessant, dass fünfzig Prozent Frauen
it is interesting that fifty.ACC percent.ACC women.ACC
die Firma Ketara beschäftigt.
the.NOM company.NOM Ketara.NOM employs
'It is interesting that the company Ketara employs 50% women.'

Appendix: All test items

German: transitive, definite

► sentence-final

- (92) Es ist interessant, dass die Firma Ketara
it is interesting that the.NOM company.NOM Ketara.NOM
fünfzig Prozent der Frauen beschäftigt.
fifty.ACC percent.ACC the.GEN women.GEN employs

► sentence-initial

- (93) Es ist interessant, dass fünfzig Prozent der
it is interesting that fifty.ACC percent.ACC the.GEN
Frauen die Firma Ketara beschäftigt.
women.GEN the.NOM company.NOM Ketara.NOM employs
'It is interesting that the company Ketara employs 50% of the
women.'

Appendix: All test items

Russian: intransitive

▶ preverbal

- (94) Interesno, čto v kompanii Kaloma rabotajut pjat'desjat
interesting that in company Kaloma work fifty.NOM
procentov ženščin.
percent.GEN.PL women.GEN

▶ postverbal

- (95) Interesno, čto pjat'desjat procentov ženščin
interesting that fifty.NOM percent.GEN.PL women.GEN
rabotajut v kompanii Kaloma.
work in company Kaloma

Appendix: All test items

Russian: transitive

▶ preverbal

- (96) Interesno, čto kompanija Ketara deržit na službe
interesting that company.NOM Ketara.NOM holds on service
pjat'desjat procentov ženščin.
fifty.ACC percent.GEN.PL women.GEN

▶ preverbal

- (97) Interesno, čto pjat'desjat procentov ženščin deržit
interesting that fifty.ACC percent.GEN.PL women.GEN holds
na službe kompanija Ketara.
on service company.NOM Ketara.NOM

Appendix: All test items

BCMS: intransitive

▶ preverbal

- (98) Zanimljivo je da pedeset posto žena radi u
interesting is that fifty.NOM percent women.GEN works in
firmi Spedex.
company.LOC Spedex

▶ postverbal

- (99) Zanimljivo je da u firmi Spedex radi pedeset
interesting is that in company.LOC Spedex works fifty.NOM
posto žena.
percent women.GEN

Appendix: All test items

BCMS: transitive

▶ postverbal

- (100) Zanimljivo je da firma Spedex zapošljava pedeset
interesting is that company.NOM Spedex employs fifty.ACC
posto žena.
percent women.GEN

▶ preverbal

- (101) Zanimljivo je da pedeset posto žena zapošljava
interesting is that fifty.ACC percent women.GEN employs
firma Spedex.
company.NOM Spedex

Appendix: All test items

Slovenian: intransitive

▶ preverbal

- (102) Zanimivo je, da petdeset odstotkov žensk dela v
interesting is that fifty.NOM percent women.GEN works in
podjetju Spedex.
company.LOC Spedex

▶ preverbal

- (103) Zanimivo je, da v podjetju Spedex dela petdeset
interesting is that in company.LOC Spedex works fifty.NOM
odstotkov žensk.
percent women.GEN

Appendix: All test items

Slovenian: transitive

▶ postverbal

- (104) Zanimivo je, da podjetje Spedex zaposluje petdeset
interesting is that company.NOM Spedex employs fifty.ACC
odstotkov žensk.
percent women.GEN

▶ preverbal

- (105) Zanimivo je, da petdeset odstotkov žensk zaposluje
interesting is that fifty.ACC percent women.GEN employs
podjetje Spedex.
company.NOM Spedex

Appendix: All test items

Polish: intransitive

▶ preverbal

- (106) To ciekawe, że pięćdziesiąt procent kobiet pracuje
this interesting that fifty.NOM percent women.GEN works
w firmie Ekspol.
in company.LOC Ekspol

▶ postverbal

- (107) To ciekawe, że w firmie Ekspol pracuje
this interesting that in company.LOC Ekspol works
pięćdziesiąt procent kobiet.
fifty.NOM percent women.GEN

Appendix: All test items

Polish: partitive

▶ preverbal

- (108) To ciekawe, że pięćdziesiąt procent spośród kobiet
this interesting that fifty.NOM percent among women.GEN
pracuje w firmie Ekspol.
works in company.LOC Ekspol

▶ postverbal

- (109) To ciekawe, że w firmie Ekspol pracuje
this interesting that in company.LOC Ekspol works
pięćdziesiąt procent spośród kobiet.
fifty.NOM percent among women.GEN

Appendix: All test items

Polish: transitive

▶ postverbal

- (110) To ciekawe, że firma Ekspol zatrudnia
this interesting that company.NOM Ekspol employs
pięćdziesiąt procent kobiet.
fifty.ACC percent women.GEN

▶ preverbal

- (111) To ciekawe, że pięćdziesiąt procent kobiet
this interesting that fifty.ACC percent women.GEN
zatrudnia firma Ekspol.
employs company.NOM Ekspol

Appendix: All test items

Czech: intransitive

▶ preverbal

- (112) Je zajímavé, že padesát procent žen pracuje ve
is interesting that fifty.NOM percent women.GEN works in
společnosti Spedex.
company.LOC Spedex

▶ postverbal

- (113) Je zajímavé, že ve společnosti Spedex pracuje padesát
is interesting that in company.LOC Spedex works fifty.NOM
procent žen.
percent women.GEN

Appendix: All test items

Czech: partitive

▶ preverbal

- (114) Je zajímavé, že padesát procent z žen pracuje
is interesting that fifty.NOM percent from women.GEN works
ve společnosti Spedex.
in company.LOC Spedex

▶ postverbal

- (115) Je zajímavé, že ve společnosti Spedex pracuje padesát
is interesting that in company.LOC Spedex works fifty.NOM
procent z žen.
percent from women.GEN

Appendix: All test items

Czech: transitive

▶ postverbal

(116) Je zajímavé, že společnost Spedex zaměstnává padesát
is interesting that company.NOM employs fifty.ACC percent
procent žen.
women.GEN

▶ preverbal

(117) Je zajímavé, že padesát procent žen zaměstnává
is interesting that fifty.ACC percent women.GEN employs
společnost Spedex.
company.NOM

Appendix: All test items

Slovak: intransitive

► postverbal

- (118) Je zaujímavé, že päťdesiat percent žien pracuje v
is interesting that fifty.NOM percent women.GEN works in
spoločnosti Spedex.
company.LOC Spedex

► postverbal

- (119) Je zaujímavé, že v spoločnosti Spedex pracuje päťdesiat
is interesting that in company.LOC Spedex works fifty.NOM
percent žien.
percent from women.GEN

Appendix: All test items

Slovak: partitive

▶ preverbal

- (120) Je zaujímavé, že päťdesiat percent zo žien pracuje
is interesting that fifty.NOM percent from women.GEN works
v spoločnosti Spedex.
in company.LOC Spedex

▶ postverbal

- (121) Je zaujímavé, že v spoločnosti Spedex pracuje päťdesiat
is interesting that in company.LOC Spedex works fifty.NOM
percent zo žien.
percent from women.GEN

Appendix: All test items

Slovak: transitive

► postverbal

(122) Je zaujímavé, že spoločnosť Spedex zamestnáva
is interesting that company.NOM Spedex employs
päťdesiat percent žien.
fifty.ACC percent women.GEN

► preverbal

(123) Je zaujímavé, že päťdesiat percent žien zamestnáva
is interesting that fifty.ACC percent women.GEN employs
spoločnosť Spedex.
company.NOM Spedex

Appendix: All test items

Bulgarian: intransitive, bare

▶ preverbal

(124) Interesno, če petdeset procenta ženi rabotjat vāv
interesting that fifty percent women work in
firma Kaloma.
company Kaloma

▶ postverbal

(125) Interesno, če vāv firma Kaloma rabotjat petdeset
interesting that in company Kaloma work fifty
procenta ženi.
percent women
'It is interesting that 50% of the workers at the company
Kaloma are women.'

Appendix: All test items

Bulgarian: intransitive, definite

▶ preverbal

- (126) Interesno, če petdeset procenta ot ženite rabotjat vāv
interesting that fifty percent of women.DEF work in
firma Kaloma.
company Kaloma

▶ postverbal

- (127) Interesno, če vāv firma Kaloma rabotjat petdeset
interesting that in company Kaloma work fifty
procenta ot ženite.
percent of women.DEF
'It is interesting that 50% of the women work at the company
Kaloma.'

Appendix: All test items

Bulgarian: transitive, bare

▶ postverbal

- (128) Interesno, če firma Ketara e naela petdeset procenta
 interesting that company Ketara is hired fifty percent
 ženi.
 women

▶ preverbal

- (129) Interesno, če petdeset procenta ženi e naela firma
 interesting that fifty percent women is hired company
 Ketara.
 Ketara
 'It is interesting that the company Ketara (has) hired 50%
 women.'

Appendix: All test items

Bulgarian: transitive, definite

► postverbal

- (130) Interesno, če firma Ketara e naela petdeset procenta ot
 interesting that company Ketara is hired fifty percent of
 ženite.
 women.DEF

► preverbal

- (131) Interesno, če petdeset procenta ot ženite e naela
 interesting that fifty percent of women.DEF is hired
 firma Ketara.
 company Ketara
 'It is interesting that the company Ketara (has) hired 50% of
 the women.'

Appendix: All test items

Macedonian: intransitive, bare

▶ preverbal

- (132) Interesno e što pedeset procenti ženi rabotat vo
interesting is that fifty percent women work in
firmata Kaloma.
firm.DEF Kaloma

▶ postverbal

- (133) Interesno e što vo firmata Kaloma rabotat pedeset
interesting is that in firm.DEF Kaloma work fifty
procenti ženi.
percent women
'It is interesting that 50% of the people working at the
company Kaloma are women.'

Appendix: All test items

Macedonian: intransitive, definite

▶ pretverbal

- (134) Interesno e što pedeset procenti od ženite rabotat vo
interesting is that fifty percent of women.DEF work in
firmata Kaloma.
firm.DEF Kaloma

▶ postverbal

- (135) Interesno e što vo firmata Kaloma rabotat pedeset
interesting is that in firm.DEF Kaloma work fifty
procenti od ženite.
percent of women.DEF
'It is interesting that 50% of the women work at the company
Kaloma.'

Appendix: All test items

Macedonian: transitive, bare

▶ postverbal

- (136) Interesno e što firmata Ketara vrabotuva pedeset procenti
 interesting is that firm.DEF Ketara employs fifty percent
 ženi.
 women

▶ preverbal

- (137) Interesno e što pedeset procenti ženi vrabotuva firmata
 interesting is that fifty percent women employs firm.DEF
 Ketara.
 Keara
 'It is interesting that the company Ketara employs 50% women.'

Appendix: All test items

Macedonian: transitive, definite without clitic

▶ postverbal

- (138) Interesno e što firmata Ketara vrabotuva pedeset procenti
interesting is that firm.DEF Ketara employs fifty percent
od ženite.
of women.DEF

▶ preverbal

- (139) Interesno e što pedeset procenti od ženite vrabotuva
interesting is that fifty percent of women.DEF employs
firmata Ketara.
firm.DEF Ketara
'It is interesting that the company Ketara employs 50% of the
women.'

Appendix: All test items

Macedonian: transitive, definite with clitic

► postverbal

- (140) Interesno e što firmata Ketara gi vrabotuva pedeset
interesting is that firm.DEF Ketara CL employs fifty
procenti od ženite.
percent of women.DEF

► preverbal

- (141) Interesno e što pedeset procenti od ženite gi
interesting is that fifty percent of women.DEF CL
vrabotuva firmata Ketara.
employs firm.DEF Ketara
'It is interesting that the company Ketara employs 50% of the
women.'

Appendix: German scenarios

- (142) C, intransitive: Die Firma Kaloma befindet sich nicht weit weg von einem Dorf, das ansonsten recht abgelegen ist. Kaloma beschäftigt die Hälfte der Frauen aus dem Dorf.
- (143) NC, intransitive: Die Firma Kaloma befindet sich nicht weit weg von einem Dorf, das ansonsten recht abgelegen ist. Einige Leute aus dem Dorf arbeiten dort. Kaloma achtet auf Gendergleichstellung, und die Hälfte ihrer Angestellten sind Frauen.
- (144) C, transitive: Die beiden Firmen Birapo und Ketara befinden sich nicht weit weg von einem Dorf, das ansonsten recht abgelegen ist. Deswegen sind diese beiden Firmen die Hauptarbeitgeber der Dorfbewohnerinnen und -bewohner. Während die meisten Männer aus dem Dorf bei Birapo angestellt sind, arbeitet die Hälfte der Frauen aus dem Dorf bei Ketara.
- (145) NC, transitive: Die beiden konkurrierenden Firmen Birapo und Ketara haben ungefähr gleich viele Beschäftigte. Während die meisten Angestellten bei Birapo männlich sind, ist die Hälfte der Beschäftigten bei Ketara weiblich.

Appendix: Russian scenarios

- (146) C, intransitive: Kompanija Kaloma naxoditsja nedaleko ot derevni, kotoraja udalena ot vsego ostal'nogo. Kompanija predostavljaet rabotu polovine ženščin ètoj derevni.
- (147) NC, intransitive: Kompanija Kaloma naxoditsja nedaleko ot derevni, kotoraja udalena ot vsego ostal'nogo. Neskol'ko čelovek iz derevni rabotajut tam. Kompanija sobljudaet gendernoe ravenstvo, i polovina ee rabotnikov – ženščiny.
- (148) C, transitive: Kompanii Pirapo i Ketara naxodjatsja nedaleko ot derevni, kotoraja udalena ot vsego ostal'nogo. Takim obrazom, Pirapo i Ketara – glavnye rabotodateli dlja žitelej derevni. V tom vremja kak bol'sinstvo mužčin iz derevni rabotaet v kompanii Pirapo, polovina ženščin iz derevni rabotaet v kompanii Ketara.
- (149) NC, transitive: U dvux konkurirujuščix kompanij Pirapo i Ketara odinakovoe količestvo rabotnikov. V to vremja kak bol'sinstvo rabotnikov kompanii Pirapo – mužčiny, polovina rabotnikov kompanii Ketara – ženščiny.

Appendix: Corpus study Polish

National Corpus of Polish (NCP)

Przepiórkowski et al. (2012)

- ▶ Searched string: *procent kobiet* ('percent women.GEN')
 - ▶ Other searches returned too much noise
 - ▶ 101 hits
 - ▶ 6 clear cases of the NC construal
 - ▶ %QP always in postverbal position
 - ▶ 0 instances of the preverbal pattern
- Word order plays a role.

Appendix: Corpus study Czech

Czech National Corpus (CNC)

Křen et al. (2012)

- ▶ Searched string: *procent žen* ('percent women.GEN')
 - ▶ Other searches returned too much noise
 - ▶ 110 hits
 - ▶ 16 clear cases of the non-conservative construal
 - ▶ 15 with %QP in postverbal position
 - ▶ Only 1 instance of the preverbal pattern (we'll get back to it)
- Word order plays a role.

Appendix: Corpus study German

KorAP

<https://korap.ids-mannheim.de/>

- ▶ Searched string: *Prozent Frauen* 'percent women'
- ▶ 207 hits (quite a few double; quite a few irrelevant)
- ▶ No sentence-initial/higher %Q
- ▶ 10 lower subjects of intransitives: all with sentence-initial PPs
- ▶ 3 transitive subjects, none sentence-initial (2 DAT-NOM)
- ▶ 7 transitive objects (all low)
- ▶ 3 headlines, all with PPs, e.g. *8,3 Prozent Frauen im Aufsichtsrat* '8.3% women in the Supervisory Board'
- ▶ 14 other (PPs, adjuncts etc.), e.g. *die Forderung nach 30 Prozent Frauen in Führungspositionen* 'the demand for 30% women in leadership positions'

Appendix: Focus elsewhere

Czech corpus study

(150) CONTEXT: “Currently, we are ranked 78th in the worldwide ranking tracking the representation of women in the parliament,” said Jana Smiggels-Kavková, the head of Fórum 50%.

Více než 40 procent žen v dolní komoře
more than 40 percent women.GEN in low.LOC chamber.LOC
parlamentu má z evropských zemí
parliament.GEN has from European.PL.GEN countries.GEN
například Švédsko_F...
for-instance Sweden.NOM

‘Among the European countries that have more than 40% women in the low chamber of the parliament there is, for instance, Sweden ...’

(CNC)

Appendix: Focus elsewhere

Czech corpus study

- ▶ Previous discourse: proportions of women in EU parliaments
 - ▶ Marked information structure:
 - ▶ New information focus on 'Sweden', the rest is backgrounded
 - ▶ New information/focused element appears sentence-finally
- This seems to go against Sauerland & Co.'s (implicit?) empirical claim that (part of) the NP after %Q needs to be focused for the NC reading to arise.

Appendix: Focus elsewhere

- ▶ Examples by informants to improve on preverbal NC %Qs:

(151) Je zajímavé, že **padesát procent žen** zaměstnává
is interesting that fifty.ACC percent women.GEN employs
[společnost EXPOL]_{CF}, a **nikoliv Bustrans**.
company.NOM Expol and not Bustrans

CZECH

(152) **50% Frauen** beschäftigt **nur** [die
50%.ACC women.ACC employs only the.NOM
Firma Pirapo]_F.
company.NOM Pirapo.NOM

'It is only the company Pirapo that employs 50% women.'

GERMAN

Appendix: Further doubts about the role of focus

- ▶ NC possible even with fronting/topicalization of the NP:

(153) [Kobiet]_T to w firmie Ekspol pracuje pięćdziesiąt
women.GEN TOP in company.LOC Ekspol works fifty.NOM
procent.
percent
'As for women, they make up fifty percent of the people
working at the company Ekspol.' POLISH