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On the rescuing of *des*-indefinites

Carmen Dobrovie-Sorin (CNRS-LLF, University de Paris Diderot), Tabea Ihsane (University of Zurich), David Paul Gerards (University of Leipzig)

Overview:

(i) *des/de la/du* = counterparts of English bare plurals (BPs) and bare mass NPs (BMNs).
⇨ same semantic analysis:
- property-denotation (Bosveld-de Smet 1998; Dobrovie-Sorin & Beyssade 2004; Ihsane 2008; a.o.)
- weak exist Qs (Dobrovie-Sorin & Beyssade 2012, Dobrovie-Sorin & Giurgea 2015)

(ii) *des/de la/du* ≠ BPs, BMNs: narrow scope wrt. **Neg**.
⇨ Dobrovie-Sorin (2020):
- Bare Nouns (BNs) in argument positions denote properties => verb modifiers, complex pred. formation.
- *des*-indefinites in argument positions denote weak exist Qs.

(iii) *des/de la/du* ≠ *some-NPs*: rescuing contexts
⇨ Dobrovie-Sorin & Ihsane (submitted), Dobrovie-Sorin, Ihsane & Gerards (in progress)

1. Positive Polarity Items: *des*-indefinites vs. Bare Nouns

1.1 *Des*-indefinites and negation: the core data

• *des* => *de* (standard French, Gross 1967; Attal 1976; Wilmet 1977 and Kupferman 1979; for colloquial French, see Strebel 2022, Strebel/Ihsane/Stark 2022)

(1) a. Jean a filmé des ours.
b. Jean a acheté du vin.

(2) In standard French, *des*-indefinites cannot take local narrow scope with regard to Negation (in unmarked contexts).

(3) a. Jean n'a **pas** filmé **d'ours/*des ours**.
b. Jean n'a **pas** acheté **de vin/*du vin.**

(4) A PPI is a constituent that cannot take local narrow scope with regard to Negation.

(5) *Des*-indefinites are PPIs.

1.2 Bare Nouns are not PPIs

(6) All existentially interpreted BNs (BPs, BMNs, BSs) take narrow scope with regard to Negation (Carlson 1977):

(7) a. John has(n't) read novels.
b. Mary doesn't drink/drinks milk.

• kind denotation (Carlson 1977) or property denotation (van Geenhoven 1996)

• Predicate Modification

(8) All BNs (i.e., BSs, BPs and BMNs in subject or object positions) are/can be property-denoting expressions that compose with the main predicate via Predicate Modification.

(9) [[V]] = λP λy ∃e [P-V (e) ∧ Ag (e) = y ∧ *Appropriately Classificatory* (e)]
where ∃e P-V(e) is true iff ∃e' (V(e') ∧ ∃x (Theme(e') = x ∧ P(x)) (adapted Dayal 2011, 146)

• Predicate Modification and Negation

• BNs are modifiers of the main verb, sentential negation involves a negated existential quantifier that binds an event-variable (Acquaviva 1997, Giannakidou 1997 and Zeijlstra 2004):

(10) John didn't buy tickets.
¬∃e [**ticket-buy** (e) & Agent (e, John)] 'there was no event of John buying tickets'

1.3 Analysis of *des*-indefinites

(11) a. *Des*-indefinites are property-denoting nominals (on a par with BNs).
(Bosveld de Smet 1998, 2004, Dobrovie-Sorin & Beyssade, Ihsane 2008, a.o.)
b. *Des*-indefinites are weak existential quantifiers.
(Dobrovie-Sorin & Beyssade 2012, Dobrovie-Sorin and Giurgea 2015):

(12) [[des]] = λP_{cum} λQ λe ∃x (P(x) ∧ Q(x)(e))
defined iff Q is a localizing predicate

• There are two types of localizing predicates:
(i) predicates with locative adjuncts, e.g. *sleep (in the room), dance (in the street)*
(ii) predicates that express spatial relations between their arguments (e.g. *surround, around, on, under, put something somewhere*).

• The denotation in (12) differs from the standard GQ denotation of indefinite Det's (which does not distinguish between 'weak' and 'strong' indefinite determiners) in several respects:

(i) the nominal argument denotes a 'cumulative' predicate (see mass and plural NPs);
(ii) in addition to the two property-denoting arguments P and Q, we have the event argument;
(iii) finally, the second argument, Q, corresponding to the main predicate, must be 'localizing'.

(13) a. Jean lisait des livres.
b. ∃e ∃z (*book(z) ∧ read(e) ∧ Theme(e)=z ∧ Agent(e) = Jean)

2. *De*-indefinites

(14) Jean n'a pas lu de livres.

- invariable *de* = strict NPI
- Collins and Postal's (2014) analysis of strict NPIs = Polyadic Quantification subject to Determiner Sharing
- We will propose a revised version of Dobrovie-Sorin's (2020) polyadic Q analysis of *de*-indefinites.

2.1 Negative Concord: Polyadic Quantification

• Polyadic quantification other than NEG-concord: (Keenan 1987, 1992, 1996, Peters and Westerståhl 2006).

• NEG-concord: a sequence of neg. indefinites is interpreted as a complex negative quantifier

- May (1989), van Benthem (1989): polyadic quantifier approach
- Deprez (1997): 'resumption' analysis of N-words underlies Neg concord
- de Swart (1999): polyadic approach extended to N-word + sent negation co-occurrence
- de Swart and Sag (2002)

(15) *Niciun student nu respectă niciun profesor.* (Romanian)
no student not respects no professor
'No student respects any professor.'

• The N-words do not each count as a negative quantifier (would cancel each other)
=> polyadic quantification = several variables are bound by a unique n-ary negative quantifier:

(16) $\neg\exists_{<x,y>}$ student(x) & professor(y) & respect (x, y)

• A Neg polyadic quantifier can also bind an event variable, in addition to one of more indiv var's:

(17) *Niciun student n-a citit nicio carte.* (Romanian)
no student not-has read no book
'No student read any book.'

(18) $\neg\exists_{<e,x,y>}$ student(x) & book(y) & read (e,x,y)

2.2 Polyadic Q is constrained by Zeijlstra's (2012) Upward Agree

• Upward Agree as a constraint on Polyadic Q[1] replaces Collins & Postal's (2014) Determiner Sharing, used by Dobrovie-Sorin (2020).

(19) Upward Agree: α agrees with β iff

[1] Note that in Zeijlstra's (2004) own implementation Upward Agree yields a unary Q.

a. α carries at least one uninterpretable feature [uF] and β carries a matching interpretable feature [iF];
b. β c-commands α;
c. β is the closest goal to α.

• Upward Agree is satisfied in (17) because N-words are marked with the [uNEG] feature, which is checked against the NEG feature of sentential negation.

• Bjorkman & Zeijlstra (2019) and Zeijlstra (2022: 502)

- The features that enter (Upward) AGREE are purely syntactic in nature.
- Semantic content is orthogonal to uninterpretable/interpretable =>
- Dependent/independent would be a better label than uninterpretable/interpretable.

2.3 *De*-indefinites: NEG polyadic quantification constrained by Upward Agree[2]

• Kayne (1975, his Section 2.5): invariable DE under NEG: [Ø de NP], where Ø is an empty QP (see also Ihsane 2008 for a similar analysis).

• Extending polyadic Q to *de*-indefinites.

(20) Local narrow scope of an indefinite DP with respect to sentential Negation is read off an LF relying on polyadic quantification.

(21) Polyadic Q is constrained by Upward Agree (see § 2.2)

=>

(22) a. *des*-indef's do not carry a uNEG feature => *narrow scope wrt sentential NEG
b. *de*-indef's carry a uNEG feature => narrow scope wrt NEG

(23) $[_{DP}[_{D}Ø][_{MeasP}\ [_{Spec,Meas/QuantP}Ø]_{uNEG}\ [_{Meas'}\ [_{Meas°}\ DE]\ [_{NP}\ livres]]]]$

(24) Jean n'a $[_{NEG}$ pas] lu $[_{DP}[_{D}Ø][_{MeasP}\ [_{Spec,Meas/QuantP}Ø]_{uNEG}\ [_{Meas'}\ [_{Meas°}\ DE]\ [_{NP}\ livres]]]]$

(25) $\neg\exists_{<e,x>}$ books(x) & read (e,x)

3. Rescuing: when PPIs (*des*) *can* scope under Negation

3.1 *Des*-indefinites can be 'rescued'

• Rescuing of *some*-PPIs in English: Szabolcsi (2004)
• *Des*-indefinites are allowed in 'rescuing' contexts:

(26) a. Je ne crois pas qu'il n'a pas mangé du chocolat.

[2] Compare Upward AGREE with QR (see Déprez 1997) or Det Sharing (Collins & Postal 2014).

b. Je regrette qu'il n'a pas écrit des romans.
c. Si Jean n'achète pas des gâteaux, j'irai en acheter.
d. Seulement Jean n'a pas acheté des gâteaux.

• Larrivée (2012):
- negated questions
- complement of *the fact*

(27) a. N'a-t-il pas écrit des romans ?
b. Le fait qu'il n'a pas écrit des romans.

• Szabolcsi (2004):
- PPIs (*some* in particular) are doubly-negated existentials in their underlying representation.
- Rescuing: presence of two downward monotonic operators, each of which would license one of the two negations of the *some*-indefinite.
- Unacceptability of *some* in anti-licensing contexts (immediate scope under NEG): only one of the two negative elements is licensed.
- Acceptability of *some* with no NEG: the two negations cancel each other.

• Larrivée (2012): rescuing contexts triggering the **activation of propositions** (Dryer 1996)

3.2 Internal vs external Negation

• Inner vs. outer negation: De Clercq (2020) and references quoted there. The proposal here builds on the hypothesis of inner vs. outer negation, but the details of the implementation are new.

• **Inner Negation:** NEG is inside the TP => negative exist Q over events or event-indiv tuples

(28) $[_{TP}\neg\exists$ [Jean n'a $[_{NEG}$ pas] lu $[_{DP}[_{D}\emptyset][_{MeasP}$ $[_{Sp,Meas/QuantP}\emptyset]_{uNEG}$ $[_{Meas'}$ $[_{Meas°}$ DE] $[_{NP}$ romans]]]]]

(29) $\neg\exists_{<e,x>}$ books(x) & read (e,x, John)

**des*-DPs do not have uNEG => Upward Agree is not satisfied => *polyadic Q

• **Outer Negation:**
- NEG raises out of the TP.
- NEG raising is conditioned by the activation of functional projections above TP (Krifka's Comm(itment) and Judg(ment) Heads), related to conversational/illocutionary operators, e.g.,
- *if*, *I regret*, *only* are illocutionary operators that sit in the Spec of Krifka's (2020) Comm(itment) head, which takes Judg(ment)P as a complement. The activation of Judg(ment)P makes it possible for NEG to raise to Judg°.

(30) Je regrette qu'il n'a pas écrit des romans.
(31) $[_{Spec,Com}$I regret $][_{Com°}[_{JudgP}$ $[_{Judg°}$NEG] $[_{TP}$ t_{NEG} $\exists_{e,x}$ (write(e,x,he)]]]

• Rescuing = the polyadic existential is shielded from NEG by the TP edge => no PPI-effect

4. *Some*-NPs cannot be rescued

4.1 The data

• Szabolcsi (2004), Larrivée (2012): *some*-NPs are rescuable, but only *some*-pron's in their ex.

Szabolsci (2004):

(32) a. I don't think that John didn't call someone.
b. I regret that John didn't call someone.
c. If we don't call someone, we are doomed.
d. Only John didn't call someone.

• Dobrovie-Sorin (2020), Dobrovie-Sorin & Ihsane (submitted): *some*-NPs are not rescuable.
• Gerards (2021; cf. appendix): online-based acceptability judgment task. Results show a contrast between *some*-NPs and *some*-pronouns.

(33) a. ??If we don't call some boys, we are doomed.
b. ??I am surprised that John didn't call some boys.
c. ??Only John didn't call some boys.

4.2 Differentiating analysis of *des*-indefinites and *some*-NPs: types of weak indefinites

- *some*-NPs translate as standard exist Qs over individuals (genuine quantificational Det's) even when they are weak:

(34) $[[some]] = \lambda P\, \lambda Q\, \exists x\, (P(x) \wedge Q(x))$

- *des*-indefinites (see § 1.3 above) => end up unselectively bound by the exist Q over events:

(35) $[[des]] = \lambda P_{cum}\, \lambda Q\, \lambda e\, \exists x\, (P(x) \wedge Q(x)(e))$
defined iff Q is a localizing predicate

(36) a. **NEG can raise at LF only if it has ∃e** in its **scope** => *des*-indefinites are rescuable.
b. **NEG cannot raise at LF if it has ∃x** in its **scope** => *some*-indefinites are not rescuable.

4.3 Other contrasts between *some*-NPs vs *des*-indefinites and *some*-pronouns

Atelic sentences and habitual examples:

(37) a. John ate something/*some sandwiches for 10 minutes.
b. John frequently reads something/*some novels.

(38) a. Jean a mangé des sandwiches pendant 10 minutes.
b. Jean lit souvent des romans.

5. Conclusions

• The central ideas:

Anti-licensing
- Scope under sentential negation can only be read off **polyadic quantificational at LF**, which is constrained by **Upward Agree** in the syntax.
- *Des*-indefinites are not marked with **uNEG** and as such cannot enter UA with ¬∃e.
- *De*-indefinites are marked with uNEG => enter UA with ¬∃e.

This analysis captures the contrast observed for *des*-indefinites between their impossible 'narrow scope' with respect to negation and their preferential, quasi-obligatory narrow scope with respect to other quantifiers or operators (modals, intensional verbs or quantificational DPs). 'Narrow scope' with respect to negation is simply *not* a matter of scope but obtains via polyadic quantification.

Rescuing
- Rescuing triggers allow **NEG to raise out of TP** at LF.
- ***Des*-indefinites can be unselectively bound by ∃e.**
- ***Some*-indefinites** can only be standard exist Dets. They **cannot be unselectively bound by ∃e.**
- **NEG can raise at LF only if it has ∃e** in its **scope** => *des*-indefinites are rescuable.
- **NEG cannot raise at LF if it has ∃x** in its **scope** => *some*-indefinites are not rescuable.

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Appendix – acceptability judgment task

design

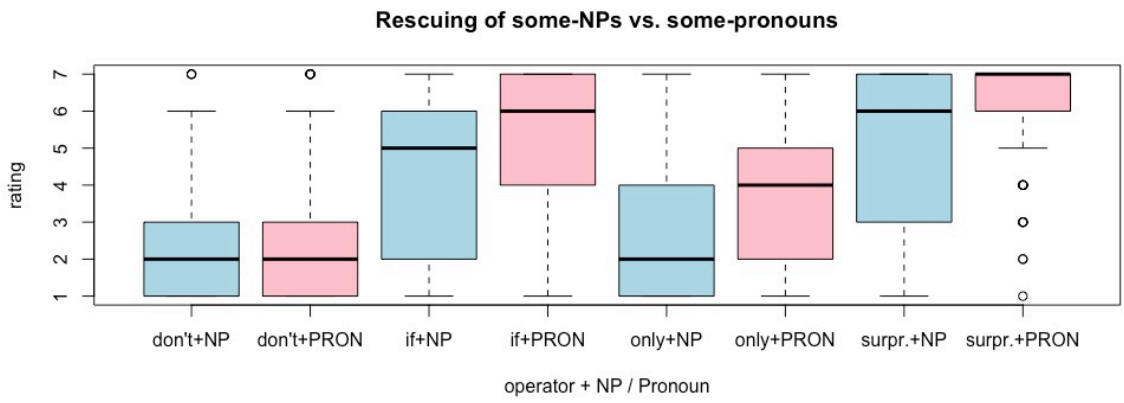
- online acceptability judgment task with monolingual native speakers of American English (n=96)
- judgments for naturalness on 7-point Likert scale
- 2x2 Latin Square design, (*some*-NP vs. *some*-pronoun); 2 different sub-experiments with 2 rescuing operators each (sub-exp. 1: *don't think* + *surprised*; sub-exp. 2: *if* + *only*)
- i.e., 4 different lists per sub-experiment
    - per list: 2 rescuing operators; every value of *some*-NP vs. *some*-pronoun tested 5 times for each rescuing operator, i.e., 20 test items altogether
      + 20 fillers (out of which 10 grammatical and 10 ungrammatical)
    - Ex.; sub-experiment 1:

	Resc. operator: *don't think*	**Resc. operator: *surprised***
***some*-NP**	Likert-Rating (x 5)	Likert-Rating (x 5)
***some*-pronoun**	Likert-Rating (x 5)	Likert-Rating (x 5)

id	item	condition	operator	pron/lex	full_material	name	verb	list
1	Sentence 1	1	dont think	pronoun	I don't think that John didn't call someone.	John	call	1
2	Sentence 1	2	dont think	lexical NP	I don't think that John didn't call some boys.	John	call	2
3	Sentence 1	3	surprised	pronoun	I am surprised that John didn't call someone.	John	call	3
4	Sentence 1	4	surprised	lexical NP	I am surprised that John didn't call some boys.	John	call	4

results

- online acceptability judgment task with monolingual native speakers of American English (n=96)
- overall: *some*-pronouns with higher acceptability than *some*-NPs (but: high variation depending on rescuing operator)



- linear-mixed logistic regression model confirms the descriptive statistical results (dependent variable: *rating*; independent variables: *rescuing operator*, *NP vs. PRON* [fixed effects] – alone and in interaction – as well as *item* and *participant* [random effects]):

```
Linear mixed model fit by REML. t-tests use Satterthwaite's method ['lmerModLmerTest']
Formula: rating ~ operator + NPvsPRON + operator * NPvsPRON + (1 | participant) +      (1 | sentence)
   Data: data.RESC


Fixed effects:
                               Estimate Std. Error        df t value Pr(>|t|)
(Intercept)                      2.1667     0.1779  153.2020  12.176  < 2e-16 ***
operatorif                       2.0500     0.2516  153.2020   8.146 1.23e-13 ***
operatoronly                     0.6583     0.2516  153.2020   2.616 0.009785 **
operatorsurprised                2.6625     0.1211 1780.0031  21.980  < 2e-16 ***
NPvsPRONPRON                     0.2833     0.1211 1780.0031   2.339 0.019445 *
operatorif:NPvsPRONPRON          0.6875     0.1713 1780.0031   4.013 6.24e-05 ***
operatoronly:NPvsPRONPRON        0.6000     0.1713 1780.0031   3.502 0.000472 ***
operatorsurprised:NPvsPRONPRON   1.3375     0.1713 1780.0031   7.808 9.88e-15 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```