Peripheral ellipsis and Verbal mismatch

Aoi Shiraïshi, Anne Abeillé

LLF & IUF

University Paris Diderot

Labex EFL

HeadLex16

1

PLAN

1. Syntactic mismatch and ellipsis

2. Syntactic mismatch and peripheral ellipsis

3. Syntactic mismatch and syncretism: corpus study

4. Syntactic mismatch and experiment

5. HPSG analysis

1. Syntactic mismatches in Ellipsis

Syntactic mismatches between the missing material (the target) in the elliptical clause and the material in the full clause (the source) when the target and the source have different syntactic categories, features…

⟹Semantic reconstruction or at LF

Well-known for VP Ellipsis:

=> Argument for a null complement analysis of VP ellipsis (Hardt 1993, Ginzburg & Sag 2000…)

Syntactic mismatches in VP ellipsis

Tense mismatch

(1) I have looked into this problem and you should (look into this problem)

Voice mismatch

(2) This problem was to have been looked into, but obviously nobody did (look at it) (Hardt 1993, Kehler 2000, Kertz 2014…)

Category mismatch (Kehler 2000, Miller & Hemforth 2014)

(3) This letter deserves a response, but before you do (respond)…

2. Peripheral ellipsis and mismatch

- Usually called Right node raising (RNR)

(4) John likes ~~bananas~~ but Mary dislikes bananas.

- Can occur outside coordination:

(5) Anyone who meets ~~our sales people~~ really comes to like our sales people. *(*Williams 1990)

- Can apply to non maximal constituents:

(6) It was a sweet ~~dog~~ and an intelligent dog (SWB corpus)

- Can apply to wordparts (Chaves 2008):

(7) These events took place in pre-~~war Germany~~ or in post-war Germany ?

Mismatch in Peripheral ellipsis ?

- Syntactic identity usually required (Beaver & Sag 2004, Chaves 2014…)

(8)*I like ~~playing guitar~~ and I will play guitar.

(9) *Paul saved ~~himself~~, but Mary didn't save herself.

- But Mismatch reported for determiner, preposition and voice for French Peripheral ellipsis (Abeillé & Mouret 2010, Abeillé, Crysmann, Shiraïshi 2015)

Determiner mismatch in Peripheral ellipsis (Abeillé & Mouret 2010)

- In French written or spoken corpora

(10) Il y des langues qui ont ~~une flexion casuelle~~,

There a.pl languages that have a inflection case

et des langues qui n' ont pas,

and a.pl languages that NEG have NEG,

de flexion casuelle.

DE inflection case

'there are languages that have and languages that don't have case inflection.'(C. Hagège)

Preposition mismatch in Peripheral ellipsis (Abeillé & Mouret 2010)

(11) Une personne sur 3 est incapable ~~de mener une vie~~

    A   person   on 3 is   incapable of live   a life

    ~~indépendante~~ ou   a   beaucoup   de   mal

    independant   or   has   a lot   of   trouble

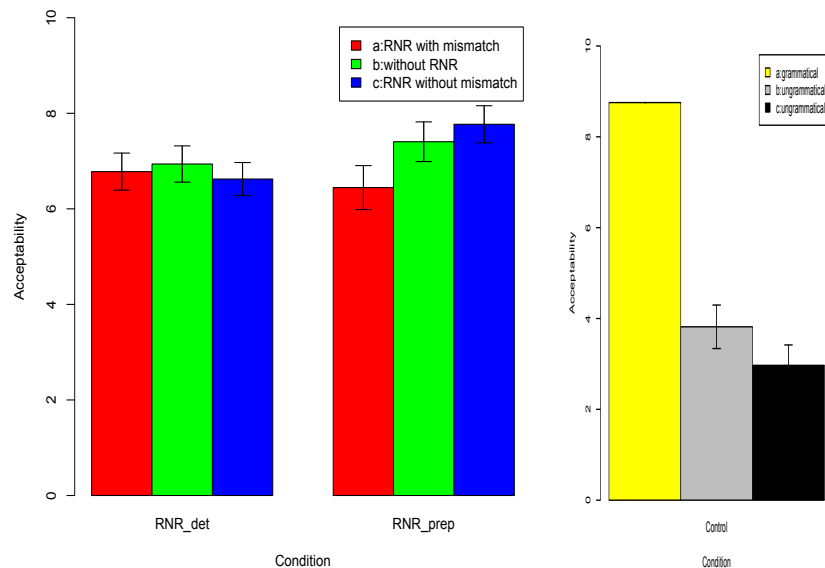   *à mener une   vie   indépendante*

    to live   a   life   independant

    '1 person out of 3 is unable or has much trouble to lead an
       independant life' (France Inter, Ester)

Accepatbility of deteminer and preposition mismatch in French RNR (Abeillé et al. 2015)

- In an acceptability judgement test, determiner and preposition mismatch are judged acceptable.

- RNR with determiner mismatch is as acceptable as RNR without mismatch (no significant effect).

- The mean rates of determiner (6.8) and preposition mismatch (6.4) are higher than ungrammatical controls (mean rate 3.4).

9

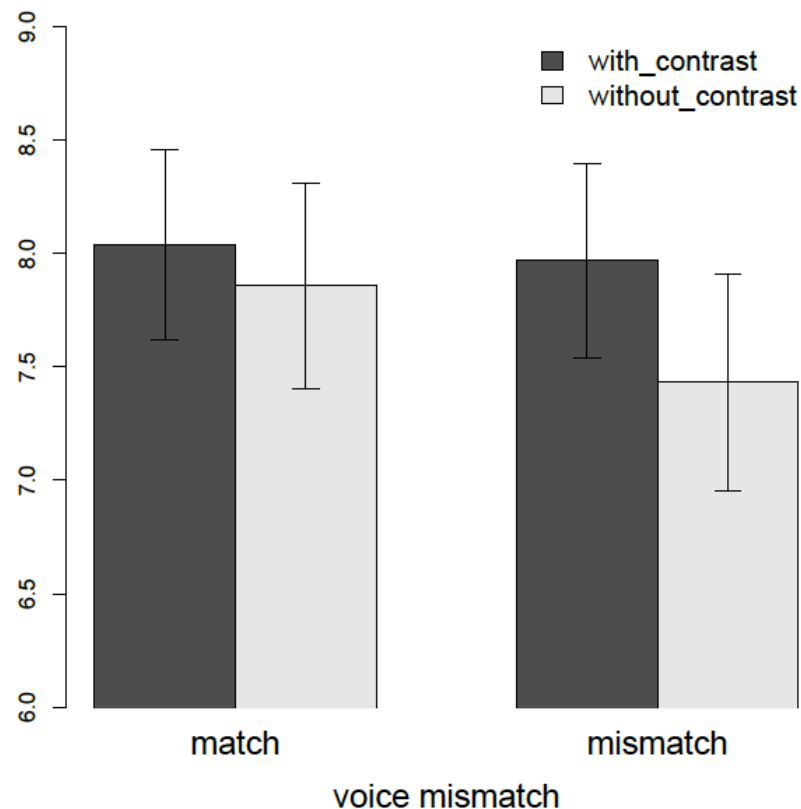# Voice mismatch in French peripheral ellipsis (Abeillé et al. 2015)

- Past and passive participles are syncretic forms
- A lot of attested examples with tense or modality contrast

(12) Ce pharmacien doit des explications à ceux

qui	se	sont	~~mobilisés pour lui~~	ou		qui
who	REFL	are	rallied for him	or		who

ont	été	mobilisés	pour lui
have	been	rallied	for him

'This pharmacist owes explanations to those who have themselves or who have been rallied for him'
(March 2013, www.ipreunion.com/)

Acceptability of Voice mismatch (Abeillé et al. 2015, Shiraishi et al. 2016)

- An acceptability judgment test and an eye tracking experiment show that with semantic contrast, voice mismatch is acceptable

- In acceptability judgment test, subjects judge that voice mismatch is acceptable (mean rate 8). Only semantic contrast plays a role

- In Eye tracking experiment, voice mismatch and Semantic contrast play a role.

3. Peripheral ellipsis and syncretism

- Mismatch said to require syncretic forms (phonological identity) (Zaenen & Karttunen 1984, Pullum & Zwicky 1986…)

(13) a. *Either they or I are/am/is going to have to go.

     b. Either they or you are going to have to go.

(14) a. *I certainly will clarify the situation, and you already have clarify/clarified the situation.

     b. I certainly will set the record straight and you already have set the record straight.

- Formal analysis of syncretic forms in LFG (Dalrymple & Kaplan 2000) and HPSG (Levy & Pollard 2001, Sag 2003,Crysmann 2005…)

Verbal mismatch supposed to require syncretism in French PE

Abeillé & Mouret (to appear):

- with (spoken) syncretism:

(15) Certaines agences ont   déjà   ~~fermé leurs portes~~

  Some   agencies have already ~~closed their doors~~

  ou vont bientôt fermer leurs portes.

  or will soon   close their   doors

  'Some estate agencies have already, or will soon close their doors

  (Le Monde FTB)

- without syncretism:

(16) * Certaines agences ont   déjà   ~~ouvert leurs portes~~

  Some agencies   have   already ~~opened their doors~~

  ou vont bientôt ouvrir leurs portes.

  or will soon   open their doors.

3.1 Corpus Study (English)

- Many examples of verb mismatch on the web:

- <u>Syncretic Verbal mismatch</u> (past participle and infinitive)

(17) I encourage anyone *who has* ~~come across my presence~~ *or who will* come across my presence to never limit yourself. (*thecashlayproject.com/post/4690385610*)

- <u>Non syncretic Verbal mismatch</u> (past participle and infinitive)

(18) Her publicist Max Clifford said: "I think she's going to be remembered as a young girl who has ~~saved an awful lot of lives~~, and who will, save an awful lot of lives.(news.bbc.co.uk/2/hi/entertainment/)

⇒ Corpus study (looking for coordinated relative clauses)

<u>3 examples in the COCA (Corpus of Contemporary American English) (all non syncretic</u>)

(19) If we Americans cultivate our inner lives and our moral selves as industriously and productively as we cultivate the material world around us, he said, then perhaps we of all peoples can long endure. He was right. We have ~~persevered~~ and we shall persevere, in no small measure because of the plucky brand of people true to these ideas. (USA Today Magazine)

Corpus study in English
(English Web 2013 19 billion words)

Form	Number of occurrence (with syncretism)	Number of occurrence (without syncretism)
who have/has and/or who present tense form + to inf	0	2
who have/has and who will +inf	0	14
who have/has or who will+ inf	0	1
who have and who are - ing	0	5
who have or who are -ing	0	7
which have and which will	0	1
Total	0	30

The examples cannot be VP ellipsis

In English, cataphoric VP ellipsis requires subordination of the ellipsis site in order to be acceptable.

(Kehler 2000)

(20) a. If you want to __, you might as well take up the new project.

　b. *You want to __, so you might as well take up the new project.

3.2. Corpus Study in French (frTenTen 2012 10.7 billion words)

looking for coordinated relative clauses with tense aux

- Syncretic Verbal mismatch (past participle and infinitive)

(21) Parler de sujets scientifiques, des innovations

     Talking of subject scientific,   a.pl innovations

qui ont *impacté   le quotidien du grand public*

which have impacted the daily life of the large public

ou qui vont impacter le quotidien du grand public.

 or which will   impact   the daily life of the large public.

'Talking about scientific topics, innovations which have or which will impact the daily life of the public.' (http://www.cnrs.fr/centre-est)

Corpus Study in French (frTenTen 2012)

- Non syncretic Verbal mismatch (past participle and infinitive)

(22) Mais il est évident que le territoire évolue sur la question,

suite aux nombreux pays européens

following to many countries european

qui ont ~~franchi le pas~~ ou qui vont franchir le pas.

which have ~~taken the plunge~~ or which will take the plunge.

'But it is obvious that the territory is evolving on the issue, following many European countries which have or which will take the plunge.'

(http://www.centregaux.org)

Corpus Study in French (frTenTen 2012)

Form	Number of occurrence (with phonological syncretism)	Number of occurrence (without syncretism)
qui sont et/ou qui vont +infinitive (who are and/or who will + inf)	3	3
qui ont et/ou qui vont+inf (who have and/or who will+inf)	16	12
qui a et/ou qui va +inf (who has and/or who will)	5	3
qui ont déjà et/ou qui vont +inf (who have already and/or who will)	0	3
qui a déjà et/ou qui va +inf (who has already and/or will+inf)	1	0
qui ont/a et/qui peuvent/peut +inf (who have/has and/or who can+inf)	1	1
qui ont et/ou qui doivent +inf (who have and/or who must+inf)	1	0
Total	27	22

The examples cannot be VP ellipsis

French does not have VP ellipsis: auxiliaries *avoir* (have), *être* (be) cannot appear without the participle. (Abeillé & Godard 1996).

(23) a. **Jean a fini son travail, mais Marie n' a   pas.*

        Jean has finished his work, but   Marie   NEG has NEG.

        'Jean has finished his work but Marie has not.'

     b. **Jean n' est pas arrivé, mais Marie est.*

        Jean NEG is NEG arrived, but Marie is.

        'Jean did not arrive, but Marie did.'

4. Syntactic mismatch: an experiment

- Is verbal mismatch without syncretism acceptable in French peripheral ellipsis?

- online acceptability judgement test with written materials (inspired from attested examples).

- 24 items (12 items with syncretism, 12 items without syncretism)

- 13 control items

- 37 French native speakers from age 19 to 70 working in French Universities.

- The subjects recruited on the Risc website rated the sentences from 0 to 10.

- Eyetracking experiment in progress

Target items for syncretic verbal mismatch

fermé/fermer (close/closed)

 (a) Peripheral ellipsis with mismatch with syncretism

Certaines agences immobilières ont déjà, ou vont bientôt fermer leurs portes.

'Some estate agencies have already, or will soon close their doors.'

 (b) without ellipsis

Certaines agences immobilières ont déjà fermé leurs portes, ou vont bientôt les fermer.

'Some estate agencies have already closed their doors, or will soon close them.'

(c) Peripheral ellipsis without mismatch

Certaines agences immobilières ont déjà, ou auront bientôt, fermé leurs portes.

'Some estate agencies just have, or will-have soon closed their doors.'

Target items for non syncretic verbal mismatch

rejoindre/*rejoint* (join/joined)

(a) Peripheral ellipsis with mismatch without syncretism

Quelques électeurs vont bientôt, ou ont peut-être déjà rejoint le centre.

'Some voters will soon, or may have already joined the center.'

(b) without ellipsis

Quelques électeurs vont bientôt rejoindre le centre, ou l'ont peut-être déjà rejoint.

'Some voters will soon join the center, or may have already joined it.'

(c) Peripheral ellipsis without mismatch

Quelques électeurs auront bientôt, ou ont peut-être déjà rejoint le centre.

'Some voters will soon have, or may have already joined the center.'

Control items

(a) grammatical

Certains commerçants ont déjà ouvert leurs magasins.

'Some shopkeepers have already opened their stores.'

(b) ungrammatical (wrong verbal form)

Certains commerçants ont déjà ouvrir leurs magasins.

'Some shopkeepers have already open their stores.'
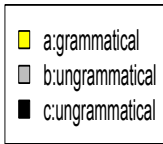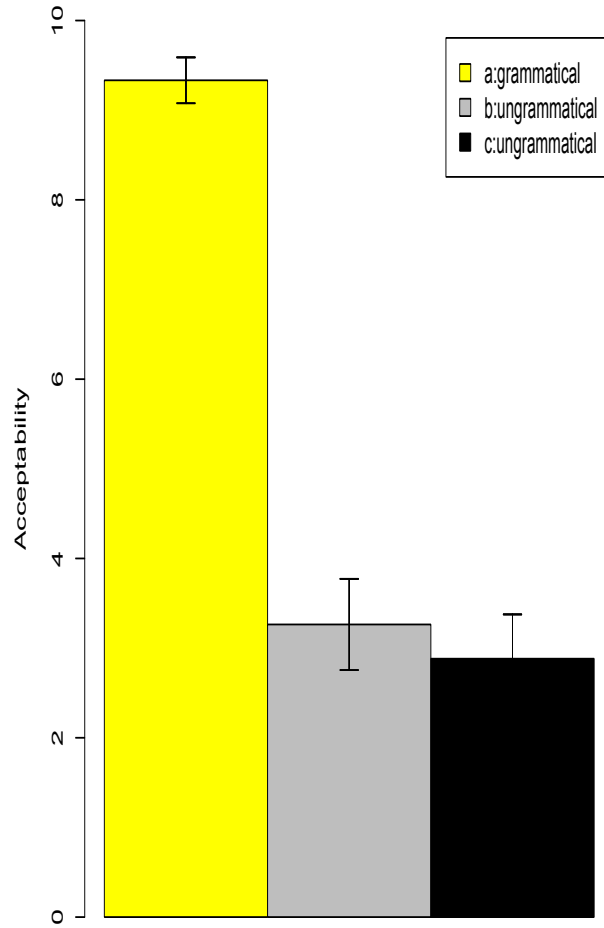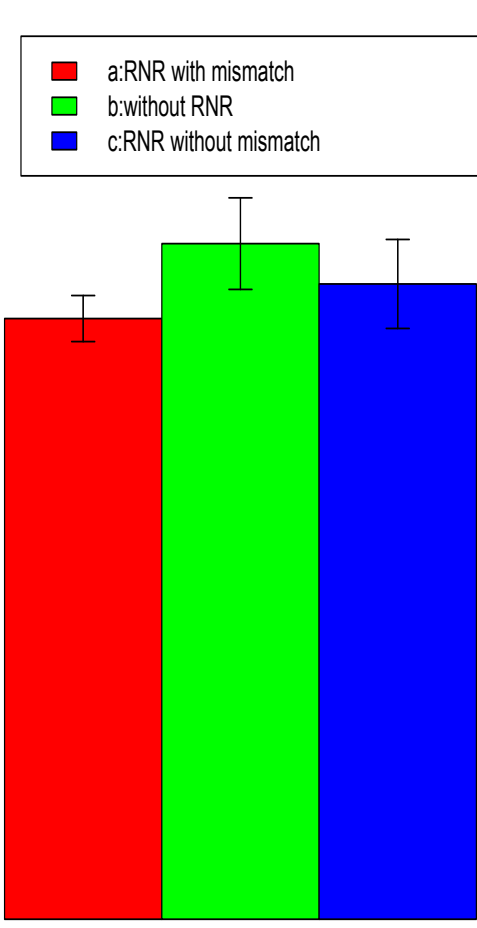
(c) ungrammatical (wrong preposition)

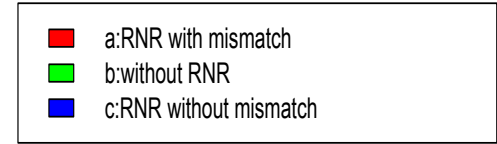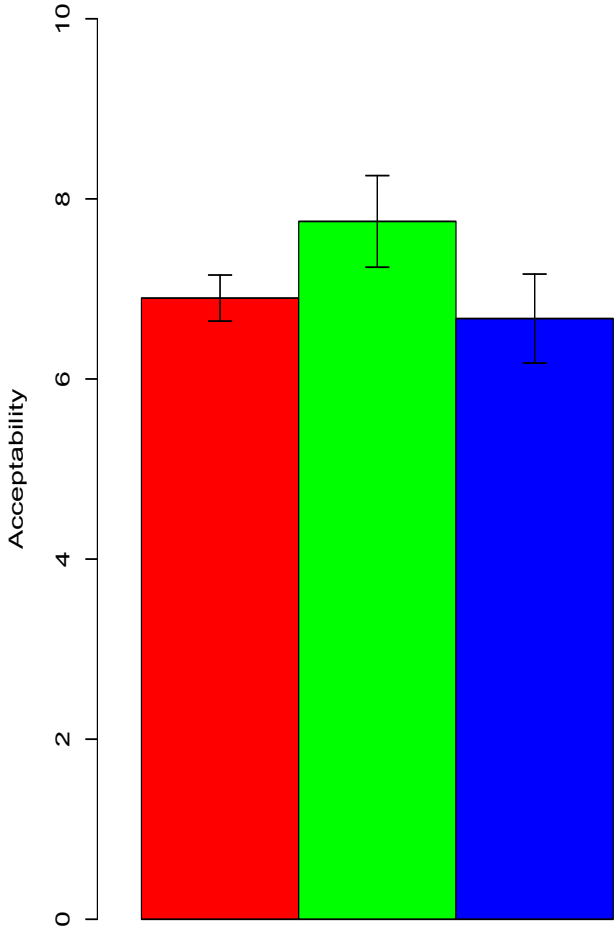*Le syndic cherche de régler ce problème de fuite.*

'The trustee tries of address this problem of leakage.'

Results

Results

- Subjects judged that Peripheral ellipsis with verbal mismatch with and without syncretism is as acceptable as PE without mismatch (there is no significant effect between the conditions)

- PE with mismatch with or without syncretism is more acceptable than ungrammatical controls

Summary

- Corpus studies have found numerous examples of peripheral ellipsis with verb mismatch in English and French

- More examples with non syncretic forms in English!

- In French, acceptability judgment test shows that :

➢ peripheral ellipsis with verbal mismatch is as acceptable as without mismatch.

➢ syncretic forms do not have a special status in peripheral ellipsis.

- Peripheral ellipsis with verbal mismatch with or without syncretism should be integrated in the grammar.

5 An HPSG analysis

5.1 Previous approaches

- Raising: across-the-board rightward movement

  (Ross 1967, Steedman 1996, Sabbagh 2007)

  [John likes _ but Mary dislikes _] bananas.

- Multidominance (McCawley 1982, Moltmann 1992, Bachrach & Katzir 2008)

  [John likes but Mary dislikes] bananas.

- Phonological deletion (Kayne 1994, Hartmann 2000, Chaves 2014)

  [John likes ~~bananas~~] [but Mary dislikes bananas].

Previous analyses of peripheral ellipsis

- Syntactic mismatch casts doubt on:

  -Raising analysis

  -Multidominance analysis

  -Deletion under identity

- In case of mismatch, the requirement of the second conjunct wins

- calls for a revised deletion analysis

  Abeillé, Crysmann, Shiraïshi CSSP 2015

5.2 HPSG Analysis

- In HPSG, Yatabe (2001, 2003) , Crysmann (2003), Beavers & Sag (2004), Chaves (2014) suppose phonological identity between missing elements and shared elements.

- In LFG, Maxwell & Manning (1996) and Kuhn et al. (2010) : non-constituent coordination analysis, which does not take into account the possibility of mismatch.

- Abeillé, Crysmann, Shiraïshi (2015) suppose that semantically empty elements can be deleted (determiner and preposition mismatch in French RNR).

- We adopt a surface deletion approach (Yatabe 2001/2012, Crysmann 2003) using a unary deletion rule (Chaves 2014, Abeillé et al. (2015)

Lexemic Identity

- Verbal mismatch shows that lexeme identity plays an important role. The past participle and the infinitive share the same lexeme.

- Homonyms cannot be shared

(24) # *Robin swung and Leslie tamed an unusual bat.*

(Levine & Hukari 2006)

(25) # *On a des avions qui ont et des accusés qui n'ont pas volé.*

'We have planes that have and defendants that have not flown/stolen.'

HPSG Analysis

- Morphophonological units in Morphophonology (MP) can be deleted under identity

- Introduce the feature Lexical Identifier (LID) in Morphophonology (MP) (Bonami & Webelhuth 2012).

- LID is used to individuate lexical items semantically: the values of LID is a list of semantic frames that canonically specify the meaning of a lexeme (Sag 2012)

- Lexeme identity can be captured by the LID feature.

fermé (past participle)

$$\left[MP \left\langle \begin{bmatrix} PHON & f\varepsilon\text{ʁ.me} \\ VFORM & psp \\ LID & \langle[fermer-fr]\rangle \end{bmatrix} \right\rangle \right]$$

fermer (infinitive)

$$\left[MP \left\langle \begin{bmatrix} PHON & f\varepsilon\text{ʁ.me} \\ VFORM & base \\ LID & \langle[fermer-fr]\rangle \end{bmatrix} \right\rangle \right]$$

franchi (past participle)   *franchir* (infinitive)

$$\left[MP \left\langle \begin{bmatrix} \text{PHON} & \text{fʁa.ʃĩ} \\ \text{VFORM} & psp \\ \text{LID} & \langle [franchir - fr] \rangle \end{bmatrix} \right\rangle \right] \qquad \left[MP \left\langle \begin{bmatrix} \text{PHON} & \text{fʁa.ʃiʁ} \\ \text{VFORM} & base \\ \text{LID} & \langle [franchir - fr] \rangle \end{bmatrix} \right\rangle \right]$$

- We reformulate Chaves 2014's RNR unary backward deletion rule so that the shared elements are always those expected by the second conjunct
- Phonological identity becomes a default constraint
- If the periphral elements have the same LID value, they can be elided.

HPSG Analysis

rnr-unary-phr

$$
\begin{bmatrix}
\text{MP} & l1 + r1 + r2 + r3 \\
\text{SYNSEM} & s \\
\text{DTRS} & \left\langle \begin{bmatrix} \text{MP} & l1 + l2: \text{nelist}\left(\begin{bmatrix}\text{PHON} \backslash p1 \\ \text{LID} \quad 1\end{bmatrix}, \dots \begin{bmatrix}\text{PHON} \backslash pn \\ \text{LID} \, n\end{bmatrix}\right) + r1 + r2: \text{nelist}\left(\begin{bmatrix}\text{PHON} \backslash p1 \\ \text{LID} \, 1\end{bmatrix}, \dots \begin{bmatrix}\text{PHON} \backslash pn \\ \text{LID} \, n\end{bmatrix}\right) + r3 \\ \text{SYNSEM} & s \end{bmatrix} \right\rangle
\end{bmatrix}
$$

Syntactic trees

(15) ont   déjà   ou vont bientôt fermer leurs portes

      have already   or will soon   close   their doors

VP:

MP<[ont][déjà][ou][vont][bientôt][fermer][leurs][portes]>

|

VP:

MP<[ont][déjà][fermé][leurs][portes][ou][vont][bientôt][fermer][leurs][portes]>

Syntactic trees

(22) qui ont   ou qui   vont franchir le pas

which have or   which will   take   the plunge

VP:

MP<[qui][ont][ou][qui][vont][bientôt][franchir][le][pas]>

I

VP:

MP<[qui][ont][franchi][le][pas][ou][vont][bientôt][franchir][le][pas]>

HPSG Analysis

- Abeillé et al. (2015) : In case of determiner and preposition mismatch, determiners and prepositions with empty LINK values (and possibly different LID values) can be elided.

- Revised RNR unary deletion rule:

$$
\begin{bmatrix}
\text{MP} & l1 + r1 + r2 + r3 + r4 \\
\text{SYNSEM} & s \\
\text{DTRS} & \left\langle
\begin{bmatrix}
\text{MP} \; l1 + \text{list}(\begin{bmatrix} \text{LNK} <> \end{bmatrix}) + l2 : \text{nelist} \left(\begin{bmatrix} PHON \; \backslash p1 \\ LID \; 1 \end{bmatrix} ... \begin{bmatrix} PHON \; \backslash pn \\ LNK \; n \end{bmatrix} \right) + r1 + r2 : \text{list}(\begin{bmatrix} \text{LNK} <> \end{bmatrix}) + r3 : \text{nelist} \left(\begin{bmatrix} PHON \; \backslash p1 \\ LID \; 1 \end{bmatrix} ... \begin{bmatrix} PHON \; \backslash pn \\ LID \; n \end{bmatrix} \right) + r4 \\
\text{SYNSEM} \quad s
\end{bmatrix}
\right\rangle
\end{bmatrix}
$$

Conclusions

- Peripheral ellipsis (RNR) is often considered to impose stricter identity conditions than other ellipsis (syncretic forms)

- Corpus study indicates the existence of verbal mismatch in peripheral ellipsis (RNR) in English and French.

- Acceptability judgment test shows that verbal mismatch in peripheral ellipsis (RNR) in French is acceptable and that phonological syncretism does not have a special status.

- In case of conflict, the requirement of the second conjunct wins.

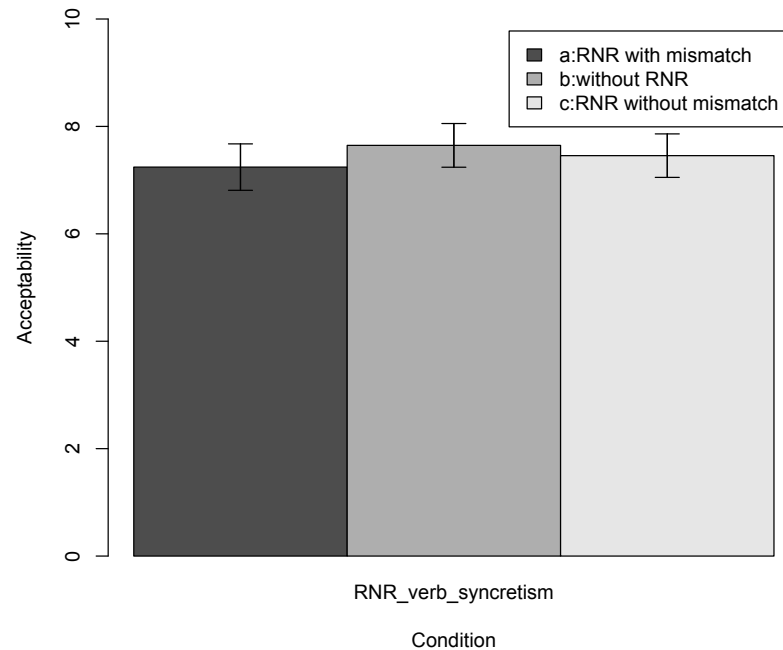- The elements that shows verbal mismatch can be deleted under lexematic identity.

Acceptability judgement test (Audio)

- 12 items with syncretism

- 28 controls

- Subset of material as written acceptability judgment test

- 3 conditions:(a) with RNR with a mismatch, (b) without RNR, (b) with RNR without mismatch

- 34 French native speakers from age 20 to 56 working in French universities

- The subjects recruited on the Risc website (http://www.risc.cnrs.fr/) rated the sentences from 0 to 10.

Results

- RNR with mismatch is as acceptable as RNR without mismatch. (There is no significant effect between the conditions)

Verb mismatch and coordination

– Verb mismatch also possible in lexical coordination:

*Those demands **have** **and** **will** come into conflict with protection of river flows in national parks.*

*Douglas Merrill, Google's chief information officer, concedes that flaws **have** **and** **will** be found in Google software*

– COCA: 6 ex with syncretism/ 42 ex without

=> Closest conjunct agreement?

Closest Conjunct Agreement in French?

In case of conflict, the requirement of the second conjunct wins.

With verbs:

(26) Autrement dit, si on doit parler des filières de communication que   la Région *a   et   va mettre en œuvre.*

which the Region has and will implement

(Editions Mardaga, Aménagement et participation, 2003)

Also with nouns:

(27) *…pour rediriger **le ou les** travaux vers leur nouvelle destination.*

'…to redirect **the-sg or the-pl jobs** to their new destination.'

(Gilles Lemaitre, Backup exec pour Windows server: sauvegarde et restau, 2007)