Competition in derivation: what can we learn from doublets?

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Introduction

- Three conditions have to be satisfied in order for morphological competition to occur : (i) distinct exponents (ii) must appear on the one and same basis and (iii) be correlated with a unique semantic content.
- The competing units must also have the same syntactic distribution.
- Examples of competition in inflection are given in (1).
- The competing forms here are in free variation, which is unfrequent.

(1) a. {*u-kha-ma*}-*tup-yokt-e* ctn
3NS.A-1NS.P-NEG-meet-NEG-PST (Bickel *et al.*, 2007)
'They didn't meet us'

b. *pens-ases* / *pens-aras* spa
think-SUBJV.PST.2SG

Introduction

- Examples of competition in derivation are given in (2).
- In the present case, the competing forms are not in free variation : one is dispreferred as suggested by the number of Google hits.

(2) a. *camionn-ier* (10) / *camionn-eur* (470,000) fra
truck-NZR.AGT (Roché, 1997)
'truck-driver'

b. *belg-ité* (142) / *belgic-ité* (31) fra
Belgian-ity / Belgium-ity (Dal & Namer, 2010)
'Belgian-ess'

- The motivations for dispreference are prosodic in this case.

Introduction

- Examples in (2) illustrate what seems to be a widespread pattern of competition in derivation (Pattern A).
- This pattern is characterized by the following features
  1. The semantic content is strictly fixed
  2. This content is normally correlated with one exponent on the basis of derivational series existing in the language.
  3. Prosody is the determinant of competition (prosodically driven competition).
- Each of these features will be illustrated below.
- Doublets are interesting because they show a pattern of competition (Pattern B), which is clearly distinct from Pattern A.

Introduction

Pattern A

- "The semantic content is strictly fixed"
  Content : 'agent nominal formed on a verb, denoting a female, and corresponding to a N-eur which denotes a male agent'
- "The content is normally correlated with one exponent on the basis of existing series"
  Two possibilities exist in French in this case, depending on the common (3) vs. learned (4) nature of the base-V.

(3) a. *chant-eur* 'sing-er :M', *encadr-eur* 'frame_mak-er :M', etc.

b. *chant-euse* 'sing-er :F', *encadr-euse* 'frame_mak-er :F', etc.

(4) a. *traduct-eur* 'translator :M', *organisat-eur* 'organiz-er :M', etc.

b. *traduct-rice* 'translator :F', *organisat-rice* 'organiz-er :F', etc.

Introduction

Pattern A

- "Prosody determines competition"
  Example 'Give the agent noun formed on *précéder* 'precede', denoting a female, and corresponding to *prédécess-eur* 'predecessor :M'
- The strong ban on /sr/ sequence in French hinders any simple option for the exponent : several are possible because none satisfies all prosodic constraints.
- This is why the competition is prosodically motivated.

(5) a. *prédécess-rice* (530)

b. *prédéces-rice* (3)

c. *prédécess-euse* (2,830)

d. *précéd-rice* (1)

e. *précéd-euse* (18)

Introduction

- The doublets I will discuss are deverbal nominalizations (NZNs) suffixed in *-age* or *-ment* e.g. *encadr-age*, *encadre-ment* 'framing'
- Their competition pattern is characterized by the following features
  1. The semantic content is not totally a priori fixed.
  2. This content is correlated with two exponents by definition.
  3. Prosody is not the determinant of competition.
- What creates the competition in this case is the duality of exponents, not the prosody
- When prosodic constraints are not satisfied, dispreferences appear as in (6), but this does not increase the number of competing lexemes.

(6) a. *? ?change-age* (4,300) / *change-ment* (90,400,000) 'changing'

b. *écrém-age* (209,000) / *? ?écrème-ment* (5) 'skimming'

Introduction

- The issues raised by these doublets clearly appear when we check how they fulfill the conditions which define competition.
- Distinct exponent : this condition is true by definition.
- Same basis : what is intended by "same basis" has to be strictly defined because it determines what a true doublet is (section 2).
- Same meaning : this condition is not always satisfied, which brings about a range of variations that are not observed with other derivationally competing units (sections 3 and 4).

Goal of the talk : to shed some light upon the way the doublets in question compete.

Defining true doublets

- Condition (ii) ('same basis') is satisfied if the doublets are correlated with the same verb.
- But what does "the same verb" mean ?
- Two concepts have to be distinguished
  - The verb qua morphological unit = the morphological verb.
  - The verb qua lexical unit = the verbal lexeme (V-lxm).
- Morphologically, a V is defined by its inflectional paradigm :
  RESSORTIR^1 (de Y) : *il ressort, il ressortait...* 'go out again'
  RESSORTIR^2 (à Y) : *il ressortit, il ressortissait...* 'come under'
  $\Rightarrow$ the two verbs are morphologically distinct (= distinct 'flexemes' (Fradin & Kerleroux, 2003)).

Defining true doublets

- A verbal lexeme is a lexeme such that
  — its syntactic category is V,
  — it governs a construction (or a set of related constructions).
- A construction is a linguistic unit involving several planes of representation (sound, meaning, syntactics) such that the elages belonging to each plane are linked in a non-predictible way (Goldberg, 1995, Kay & Fillmore, 1999, Boas, 2010, Croft, 2001).
- Example $\textsc{perler}^1$ / $\textsc{perler}^2$

Defining true doublets

(7) a. NP0 perler[1] NP1
sew(x,z,e) ∧ **beads**(z) ∧ CAUSE(e,s) ∧ LOC(z,SUPESS(y),s)
NP0 = x = AGT, NP1[garment] = y = PAT
'X sew beads on Y'

b. NP0 perler[2] [$_{PP}$ P[LOC] NP1]
appear(x,e) ∧ LOC(x,SUPESS(y),s) ∧ **form_of**(x,z) ∧ **bead**(z)
NP0[liquid] = x = FIG, NP1 = y = GRND
'X form beads on Y'

c. . . .

(8) a. *Claudine perlait un sac.* (after TLFi)
'Claudine was sewing beads on a bag'

b. *Une larme perla sur son cil (. . .) et vint s'écraser sur les lèvres.* (frWaC)
'A tear formed a bead on her eyelash and splashed on her lips'

Defining true doublets

- Consequently, PERLER^1 and PERLER^2 constitute two different verbal lexemes.
- Morphologically though, they are the same morphological verb (the same flexeme).
  PERLER^1 : *il perle, il perlait, il perla...* ' sew beads on...'
  PERLER^2 : *il perle, il perlait, il perla...* ' form a bead on...'
- Bonami & Tribout (2012) proposed to capture this identity using the feature Paradigmatic Identifier which specifies the inflectional model a given verb follows :
  PI(PERLER^1) = PI(PERLER^2) = chanter
  PI(RESSORTIR^1) = sortir, PI(RESSORTIR^2) = finir

Defining true doublets

- Summing-up of he conditions bearing on the NZN's base-verb

Conditions	(A)	(B)	(C)
Same Paradigmatic Identifier	+	+	+
Same meaning	–	+	+
Same construction	–	–	+

- (A) *perler*^{1} 'X sew beads on Y' / *perler*^{2} 'X form beads on Y'
  $\Rightarrow$ different meanings and entailments : no doublets possible.
- (B) *enterrer*^{1} 'X place Y[human] in the earth' / *enterrer*^{2} 'X place Y[thing] in the earth'
  $\Rightarrow$ same basic meaning, distinct constructions : no doublets possible.

Defining true doublets

(9) a. *(L'enterrement | *l'enterrage) de Mozart*
'Mozart's burial'

b. *(*l'enterrement | l'enterrage) des pommes de terre*
'the burying of potatoes'

c. *la profondeur (d'enterrage | *d'enterrement)*
'the depth of (burying | burial)'

- (C) This group includes the verbs which can be the base of true doublets.

The dimensions of competition

Describing how competition is organized with derivational doublets requires us to take into account the following dimensions, which will be discussed in turn :

- The extension of competition
- The degree of semantic convergence
- The articulation of lexemes with lexical entries

Dimension : extension

- **Ns-age**, **Ns-ment** compete not only with one another but with NZNs suffixed in *-ion* and those obtained by conversion ($\mathbf{N}_{STEM}$).
- However, these NZNs have been left aside because condition (ii) is not fulfilled.
- Unlike **Ns-age**, **Ns-ment**, they do not exclusively select the common verbal stem (= imperfect stem or stem 1) (Bonami *et al.*, 2009, Roché & Plénat, 2014).

Dimension : degree of semantic convergence

- A striking feature of **N-age**, **N-ment** doublets is that their meaning can be strictly equivalent or completely divergent from each other with intermediate combinations in-between.
- Two types of factors play a role in the setting of this convergence / divergence
  — The aspectual type of the NZN : event (accomplishment, activity, achievage, semelfactive), state ; object : result, means
  — The particular meaning associated with each NZN
- Normally NZNs inherit their aspectual type from their base-V, but more or less systematic exceptions are observed (Huyghe & Marín, 2007, Heinold, 2011, Fábregas & Marín, 2012).

Dimension : degree of semantic convergence

	Aspect			
	+	+	–	–
Meaning	+	–	+	–
	(a)	(b)	(c)	(d)

(10) a. (a) *rançonn-age* / *rançonne-ment* ‘ransoming’ (activity)

b. (b) *rabatt-age* ‘(game) driving’ (accompl.) / *rabatte-ment* ‘folding over’ (accompl.)

c. Impossible : contradiction

d. (c) *éclat-age* ‘action of making Y burst’ (accompl., agentive) / *éclate-ment* ‘bursting’ (semelfactive, internal causation)
(c) *prélev-age* ‘taking (blood)’ (accompl., agentive) / *prélève-ment* ‘sample’ (object, result)

Dimension : lexemes and lexical entries

- By definition, I assume that derivational morphology correlates units which are lexemes with one another.
- However, lexemes are not necessarily equivalent to lexical entries, if we agree that the latter are the units constituting the nomenclature of the lexicon (lexeme matching issue).
- Quite often a lexical entry includes several distinct but related lexemes as with PERLER above.
- I assume that complex lexical entries constitute networks organized as Idealized Cognitive Models (ICMs) (Lakoff, 1987).

Dimension : lexemes and lexical entries

- The correlation of lexical entries (LEs) with lexemes conforms either to 1 or 2

1. LE $=$ lexeme
2. LE $\neq$ lexeme :
   lexeme^1
   lexeme^2
   $\vdots$
   lexeme^n

Dimension : lexemes and lexical entries

- Combining dimensions ‘semantic convergence’ and ‘lexeme matching’

		Matching +	Matching –
Convergence	+	(a)	(b)
	–	(c)	(d)

(11) a. LE = lexeme : <*rançonner* ‘ ransom’>

b. LE = <lexeme 1 : *paver*^{1} ; lexeme 2 : *paver*^{2} ‘ pave’>

c. Impossible : contradiction

d. LE = <lexeme 1 : *raser*^{1} ‘ shave’ ; lexeme 2 : *raser*^{2} ‘ raze’>

Dimension : lexemes and lexical entries

- The morphological verb *rançonner* conforms to 1, whereas *paver* conforms to 2.

1. LE = lexeme — *rançonner* — 'X[AGT] ransom Y[PAT]'
2. LE ≠ lexeme :
   - lexeme^1 — $\textit{paver}^1$ — 'X[AGT] cover Y with Z[slabs]
   - lexeme^2 — $\textit{paver}^2$ — 'X[slabs] cover Y'
   - ⋮
   - lexeme^n

Dimension : lexemes and lexical entries

Sem. convergence : yes

1. LE = lexeme — *rançonner* — *rançonnage*, *rançonnement*
2. LE ≠ lexeme :
   - lexeme^1 — *paver*^{1} — *pavage*^{1}, *pavement*^{1}
   - lexeme^2 — *paver*^{2} — *pavage*^{2}, *pavement*^{2}

(12) a. *Le* **pavage**^{1} *de la cour devait s'achever avant Noël.*
'The paving of the yard was supposed to be achieved by Christmas'

b. *Le* **pavement**^{1} *de la plateforme du tramway progresse.*
'The paving of the tram platform makes progress'

c. *Le* **pavage**^{2} *de la cour est concentrique.*
'The pavage of yard is concentric'

d. *Les visiteurs découvrent le* **pavement**^{2} *de la cathédrale de Sienne.*
'Visitors discover the pavage of Siena cathedral'

Dimension : lexemes and lexical entries

Sem. convergence : no

1. LE = lexeme — Impossible
2. LE ≠ lexeme :

lexeme^1	*raser*^{1}	'X shave Y'
lexeme^2	*raser*^{2}	'X raze Y[building] to the ground'

Dimension : lexemes and lexical entries

Sem. convergence : no

1. LE = lexeme Impossible
2. LE ≠ lexeme :

lexeme^1	*raser*^{1}	*rasage*^{1}	'action of shaving Y'
lexeme^2	*raser*^{2}	*rasement*^{2}	'action of razing Y to the ground'

(13) a. *Le* **rasage**^{1} *des aisselles...*
'The shaving of armpits...'

b. *Le* **rasement**^{2} *de la ville et du château...*
'The razing of the town and castle...'

⇒ No competition between *rasage*^{1} and *rasement*^{2}.

Dimension : lexemes and lexical entries

- In case 1, competition takes place because Ns-age and Ns-ment are semantically equivalent.
- However, in addition to meaning, the way lexemes are anchored in the reality is a factor that must be taken into account.
  - Geographical anchoring (*diatopic variation*)
  - Social anchoring (*diastratic variation*)
  - Historical anchoring (*diachronic variation*)
  - ...
- Many doublets differ precisely by their anchoring ⇒ no free variation.

*L'***encavage** *du vin* 'wine storing in a cellar' : Switzerland /
*L'***encavement** *de X* 'the storing of X in a cellar' : elsewhere
Le **ramassage** *des pommes, etc.* 'apple picking etc.' / *ramassement*
WRESTLING e.g. *double* **ramassement** *des jambes* 'double leg pick-up'

Dimension : lexemes and lexical entries

- Up to now, the distribution of doublets that are competing vs. in free variation has been kept distinct.
- In the majority of lexical entries, however, both distributions intersect.

emballer[1]	'wrap up, pack'	*emballage*[1]	*emballement*[1]	'wrapping, packing'
emballer[2]	'envelop'	*emballage*[2]		'wrap'
s'emballer[3]	'[horse] bolt'		*emballement*[3]	'bolting'

(14) a. *Lois et règlages sur (. . .) l'***emballage**[1] *des médicaments*
'Law and rules (. . .) about the packing of medecines'

b. *L'***emballement**[1] *des marchandises est terminé.*
'The packaging of merchandises has been completed'

c. *L'(***emballage**[2] | ***emballement**[1]*) est déchiré.*
'The packing is torn up'

Modeling competition : the structuralist model

- The structuralist model of competition, based on the distinction between phoneme/morpheme and allophones/allomorphs, is not suited to account for derivational doublets.
- According to Aronoff & Lindsay (2014), this model involves
  — a contrastive emic distribution (morphemic level)
  — a complementary etic distribution (allomorphic level)
- It predicts that one allomorph should emerge as dominant (the default case), the others becoming specialized.
- Otherwise the distribution of allomorphs should be free.

Modeling competition : the structuralist model

- However nothing corresponds to the emic level : both doublets are at the same level, none of them is the realization of some more abstract unit.
- In many cases two synonymous doublets coexist and none of them is the default case, because the dominant form does not eliminate the other e.g. *rapetissage* (162,000) / *rapetissement* (35,800) 'shrinking'.
- Cases of free distribution are rare and difficult to establish without an extensive and reliable documentation.
- Quite often, two synonymous and competing doublets are associated with non-equivalent or hardly overlapping sets of complements (15).

(15) a. *Le* **tronçonnage** *des (arbres | grumes | pièces | rues)*
'The sawing up of (trees | logs | pieces | streets)'

b. *Le* **tronçonnement** *des (rues | mots | rivières | données | dialogues)*
'The cutting up of (streets | words | rivers | data | dialogues)'

Modeling competition : the fixed meaning model

- Associating suffix *-age* with a fixed range of meanings and suffix *-ment* with a complementary one (= morphemic approach) does not help and is not supported by the data for two reasons at least :

1. NZNs ending with these suffixes may be totally synonymous e.g. fra *tronçonnage* / *tronçonnement* 'cutting up', *triplage* / *triplement* 'tripling'.
2. These suffixes swap their aspectual type in function of the lexeme they are part of cf. *emballage*^{2} and *ravitaillement*^{2} below.

emballer^1	' wrap up'	*emballage*^{1}	*emballement*^{1}	eventive meaning
emballer^2	'envelop'	*emballage*^{2}		means meaning
ravitailler^1	' supply'	*ravitaillage*^{1}	*ravitaillement*^{1}	eventive meaning
ravitailler^2	'supply'	*ravitaillement*^{2}		means meaning

Modeling competition : the relevant factors

- On the other hand, one cannot merely say that the information carried by suffixes *-age*, *-ment* in doublets is the same, because such doublets are clearly not always synonymous.
- To solve the problem we need to find out the factors conditionning the way the competition of doublets is organized and to determine how they interact.
- These factors are linked with
  1. the constructions headed by the base-V (i.e. the lexemes)
  2. anchoring
  3. the derivational series the derived lexeme belongs to
  4. the morphological family of the lexeme

Modeling competition : the construction parameter

Basic idea : meaning is like dust : it can lie everywhere, provided there is something to lie on, and morphology can give it a shape.

- Verbal constructions embody meaning distinctions the NZNs cling to.
- A lexical entry may present one or several correlated lexemes. The more a lexical entry contains distinct base-Vs, the larger the possibility to form distinct NZNs is.
- Moreover the anchoring factor combines with the number of base factor, which increases the number of potential distinctions.

(a)	(b)	(c)	(d)
bse-V = 1	bse-V = 1	bse-V = n	bse-V = n
same anchoring	distinct anchoring	same anchoring	distinct anchoring

Modeling competition : the construction parameter

What we observe, is that the number of doublets tends to increase from (a) to (d), while competition tends to regress.

- (a) *rançonnage* / *rançonnement* : competition
- (b) *encavage* / *encavement* : no competition
- (c) *emballage*[1] / *emballement*[1] 'wrapping' : competition
  emballage[2] / *emballement*[1] 'wrap ; wrapping' : no competition
- (d) *perlage*[1] 'action of sewing beads on Y' / *perlement*[2] 'apparition of X[liquid] under the form of beads on Y' : no competition
  perlage[1] / *perlage*[3] OENOLOGY 'action of emitting small bubbles [vine]' : no competition
  perlage[3] / *perlement*[2] : no competition

This results from the combination of two facts :
— the fact that NZNs are formed on various variables appearing in the semantic representation of their base-V (next slide),
— the fact that each construction expresses a particular situation.

Modeling competition : the construction parameter

The semantic representation of a V (or predicate more generally) includes variables of object *x, y, z,...* and a variable of eventuality *e* : **V(x_i,... , e)**

- Standardly, a NZN denoting a situation is formed by selecting the *e* variable.
  - fra *remplace-ment* = λe. **replace**(e) $\wedge$ AGT(e, x) $\wedge$ PAT(e, y) (accomplishment)
  - fra *isole-ment* = λe. **isolated**(e) $\wedge$ EXP(e, x) (state)
- But some NZNs can be formed by selecting an x_i variable, among which those denoting a means or a place.
  - *emball-age* (means) = λx. LOC(x, CIRCUM(y),e) $\wedge$ FIG(e, x) $\wedge$ GRND(e, y)...
    'X such that X wrap Y'

Modeling competition : the role of derivational series

- A derivational series is a set of lexemes (analogically) formed on the same pattern (Hathout, 2011).
- Derivational series reflect the entrenchment of derivational patterns in the existing lexicon.
- Series and sub-series play a crucial role in morphophonology for the selection of derivational stems.
- For example, in French, suffixing *-at* on names of human beings yields names of status. But several patterns exist, as the coining of names of status on Ns ending in *-ant* illustrates (Plénat & Roché, 2014).

(16) a. Normal : *parent* 'parent' / *parent-at*, *régent* 'regent' / *régent-at*, *assistant* 'assistant' / *assistant-at* (120), etc.

b. Innovation : *assistant* 'assistant' / *assistan-at* (742.000), *figurant* 'extra, walk-on' / *figuran-at*, *postulant* 'postulant' / *postulan-at*, etc.

Modeling competition : the role of derivational series

- I contend that derivational series play also a role in derivation independently of morphophonological issues.
- Existing series of N-age, N-ment can be sorted out in function of the way properties relevant to various planes of representation are encoded in each of the lexemes.
- The clustering together of some of these properties constitutes a pattern, which can be subsequently used as a model of derivation.

Modeling competition : the role of derivational series

- Many of the properties in question surface as constraints on the base-verbs' constructions.
- The controlling vs. non-controlling of the eventuality denoted by the verbal unit is one of these properties.

Controlled	**Non-controlled**		
Tr / Direct rfl NP0[AGT] V NP0[AGT] se_V	Intransitive NP0[TH | FIG] NP0[PAT]	Anticausative NP0[PAT] se_V	Stative NP0[TH] BE V-é
écorcer 'bark (tree)' *entortiller* 'intertwine' *raidir* 'stiffen' *élaguer* 'prune' *percer* 'pierce, bore' *se percher* 'perch' *isoler* 'isolate' *(se) raser* 'shave' *raser* 'raze'	*tournoyer* 'swirl' *passer* 'pass' *papilloter* 'twinkle' *rancir* 'go rancid' *plier* 'bend'	*s'entortiller* 'twine' *se plisser* 'fold' *se raidir* 'stiffen' *se pincer* 'catch o.slf' *s'effiler* 'fray'	*isolé* 'isolated' *entortillé* 'twined' *encaissé* 'hemmed in' *évidé* 'hollowed' *perché* 'perched'

Modeling competition : the role of derivational series

Repartition hypothesis (H1)

By default, Ns-age are correlated with base-Vs the first argument of which involves control, whereas Ns-ment are correlated with base-Vs the first argument of which does not involve control.

- This predicts that whenever the lexical entry includes one verbal lexeme only, the exponent of the correlated NZN, if any, can be predicted.

Modeling competition : the role of derivational series

Assessing H1

- As predicted Ns-age can be correlated with verbal lexemes requiring control (17).
  $\Rightarrow$ the N-age has then an eventive interpretation.
- Examples are given in (18).

(17) *écorcer*/*écorçage*, *entortiller*/*entortillage*, *raidir*/*raidissage*, *élaguer* / *élagage*, *percer*/*perçage*, *se percher*/*perchage*, *se raser*/*rasage*, *isoler*/*isolage*, etc.

(18) *L'écorçage des troncs* 'the barking of trunks'
Le raidissage des haubans 'the tightening of shrouds'
Le perchage des pintades 'the perching of Guina fowls'

Modeling competition : the role of derivational series

- In a parallel way, Ns-ment are generally correlated with base-Vs which do not require control cf. (19a) and examples (20a).
- This correlation is unescapable when the predicate has the stative interpretation 'X is V-ed' as (19b) and examples (20b) illustrate.

(19) a. *tournoyer/ tournoiement*, *plier/ pliement*, *rancir/rancissement*, *papilloter/ papillotement*, *se raidir/ raidissement*, *s'effiler/ effilement*, etc.

b. *isolé/ isolement*, *entortillé /entortillement*, *évidé/évidement*, *perché/perchement*

(20) a. *Le tournoiement des fumées* 'the whirling of smokes', *le rancissement des huiles* 'the going rancid of oils', *le raidissement du dos* 'the back stiffening',

b. *le perchement de l'habitat méditerranéen* 'the perched character of Mediterranean settlement', *pour éviter l'entortillement des fils* 'to prevent the entwinement of threads'

Modeling competition : the role derivational series

- H1 predicts that a NZN a N-age and a N-ment formed on the same morphological verb should have a distinct aspectual type and meaning, which is what we observe in (21).
- In such cases, no competition takes place.

(21) *Le* **raidissage** *des haubans* / *le* **raidissement** *du dos*, *le* **perchage** *des pintades* / *le* **perchement** *de l'habitat méditerranéen*, *le* **pliage** *du linge* 'the folding of laundry' / *le* **pliement** *du genou* 'knee folding', *l'***entortillage** *des ceintures est déconseillé* 'the twisting of belts is not recommanded' / *pour éviter l'***entortillement** *des fils* 'to prevent the entwinement of threads'

Modeling competition : the role of derivational series

- However, H1 does not rule all existing situations.
- A N-ment can also be correlated with a verbal lexeme requiring control, provided the latter is the unique lexeme of a lexical entry (case (a)) (22).
  — The N-ment has then an eventive interpretation.
  — This is a situation of true competition cf. (23).

(22) *écorcer*/*écorcement*, *élaguer*/*élaguement*, *percer* /*percement*

(23) *(l'écorçage* | *l'écorcement) des troncs* 'the barking of trunks',
(l'élaguage | *l'élaguement) des arbres* 'the pruning of trees',
(le perçage | *le percement) des cloisons* 'the drillling of partition walls'

Modeling competition : the role of derivational series

- On the other hand, Ns-age are very rarely correlated with a verbal lexeme excluding control, even when the latter is the unique lexeme of a lexical entry.
- Only a handful of N-age denoting a state have been collected (24), and all compete with the corresponding Ns-ment (25).

(24) *être_ébouriffé/ébouriffage*, *être_entortillé/entortillage*

(25) *Elle [la grippe aviaire] provoquera (l'ébouriffage | l'ébouriffement) des plumes* 'it [the bird flu] will make the hens have ruffled feathers', *le problème de (l'entortillage | l'entortillement) se pose* 'the problem of entwinement is raised'

Modeling competition : the role of derivational series

- Most available attestations of non-control illustrate the case where the N-age denotes a means, as in (26) and (27) or a place as in (28).
- As for means, we saw above that the choice of exponent is rather free. A few examples of doublets are attested, which are all instances of competition.

(26) *emballer* / *emballage* 'wrapping', *entourer*/*entourage* 'surrounds', *renforcer* 'reinforce' / *renforçage* | renforcement 'strenthening structure or material used to reinforce Y'

(27) *l'emballage est déchiré* 'the wrapping is torn out', *elle préfère l'éclairage naturel* 'she prefers natural lighting'

(28) *garer* 'to shelter' / *garage* 'garage', *passer (par)* 'to pass (through)' /*passage* 'passageway'

Modeling competition : anchoring

- Anchoring usually introduces selectional restrictions on the participants of the eventuality described by the verbal constellation :
  — X[car motor] **tousser** 'to cough' (vs. '[sick person] to cough') / *toussement*
  — HUNTING **rabattre** NP1[game] 'to drive game' / *rabattage*
- These semantic distinctions are straightforwardly embodied in the NZNs derived from the verbs in question, if any.
- But once the NZN exists, it is impossible to coin the corresponding doublet with the other exponent, as contrasts in (29) show.

(29) *l'enterrage des fondations* / **l'enterrement des fondations* 'the burying of foundations', *le toussement du moteur* /**le toussement des malades* 'the cough of sick people'

Modeling competition : morphological family

- A morphological family is the set of all lexemes that are morphologically linked with the same base (the origin) e.g. *colle* 'glue', *coller*, *collage*, *colleur*, *décoller*, *décollage*, *décollement*, *recoller*, *recollage*, *encoller*, etc.
- Morphological family may enhance or inhibate the coining of new lexemes in function of the lexemes already included in the family.

Modeling competition : morphological family

- In discourse, people frequently modify the valency patterns or extend the constraints bearing on verbal argument (notably through metaphorical uses).
- Once these changes have been entrenched in a given sociolect, they offer a hold that the NZNs can cling to.
- But what happens when the base-V is already correlated with other NZNs in the morphological family in question ? To deal with this issue, I tentatively propose hypothesis H3.
- H3 is a way to cope with the requirements of canonical derivation (Corbett, 2010).

Optimization of exponence (Hypothesis H3)
When a NZN with meaning S_i needs to be derived from a given verb V_i, if possible use an exponent distinct from those already used for other NZNs formed on the same base-V.

Modeling competition : morphological family

- H3 is based on observations showing repeatedly that even when each NZN of a doublet triggers the same set of entailments (= has the same meaning), the set of examples they are correlated with do not overlap cf. *tronçonnage* / *tronçonnement* and (15).
- Similar patterns can be observed for many doublets investigated in this study.
- Furthermore, the choice of exponent reflects pervasive semantic oppositions e.g. concrete / abstract, object / human (30), etc., which either reinforce or go along distinctions conveyed by derivational series.

(30) *l'enlevage des nids* 'the removing of nests' vs. *l'enlèvement des journalistes* 'the kidnapping of journalists'

Modeling competition : morphological family

- Commenting an example will help to understand how the various constraints brought by morphological families interact.

(31) a. Concrete *le rabattage (des plants | des haies | des haies)* 'the folding back of plants, hedges', *(le rabattement (1090) | rabattage (190)) des dossiers* 'the pulling down of seatbacks'

b. Abstract *le rabattement des côtés du rectangle* 'the lowering of the rectangle sides', *le rabattement des taux tarifaires* 'the lowering of taxes on tariffs', *flèche de rabattement* 'directional arrow'

c. Human *le rabattement des voyageurs* 'the feeding of stations with travelers' / *??le rabattage des voyageurs*, *trains de rabattement* 'feeding trains' / *??trains de rabattage* 'feeding trains'

- There is room for variation even when main tendencies exist.

Conclusion

NZNs and competition

- NZNs paired as true doublets offer an ideal observatory to investigate how competition functions in derivation.
- Such doublets are rare and they always give rise to competition.
- The majority of formal doublets are not true doublets and are no more in competition than NZNs correlated to distinct base-Vs.
- Except when they belong to domains having developed peculiar vocabulary, truly competing doublets do not exhibit complete free variation : their distribution often presents differences that might subsequently become institutionalized meaning distinctions i.e. niches.
  $\Rightarrow$ we need to know more about the doublet's distribution
- This tendency is enhanced by the fact that most of these distinctions are already entrenched in the lexicon and stimulated by the use of speech figures such as metaphor, generalization, etc. in discourses.

Conclusion

Morphological account

- The patterns used to coin new lexemes are abstracted away from verbal constructs occurring in discourses and lexemes are formatted by the derivational series they enter in.
- The properties or constraints associated with these patterns are not distinct from the lexical types allowing one to classify lexical units in a hierarchical lexicon, on the model of the proposal sketched once by Koenig (1999) (see also Booij (2010)).
- As for Ns-age, Ns-ment themselves, we saw that their exponents are contentless, because the semantics of each NZN depends on which argument/participant of the verbal representation is abstracted away.
- Their main positive content would the be the selectional restrictions introduced by anchoring.

End

THANK YOU

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