

OU ? LA, LA ! ON LOCATIVE ENCODING IN FRENCH AND AU-DELÀ Workshop "Non-bare proper names", May 16-17, 2024

1 INTRODUCTION: LOCATIVE ENCODING OF FRENCH COUNTRY NAMES

French country names are mostly definite. The article is marked for gender and number:

- | | | | |
|-----|----|--|-----------|
| (1) | a. | la France, la Mauritanie, l'Irlande... | feminine |
| | b. | le Canada, le Pérou, l'Iran... | masculine |
| | c. | les Philippines, les Indes | plural |

When used in locative contexts they give rise to allomorphic portmanteaus:

- | | | | |
|-----|----|---|-----------|
| (2) | a. | <i>en France</i> 'in/to France'
<i>en Mauritanie</i> 'in/to Mauritania'
<i>en Irlande</i> 'in/to Ireland' | feminine |
| | b. | <i>au Canada</i> 'in/to Canada'
<i>au Pérou</i> 'in/to Peru'
<i>en Iran</i> 'in/to Iran' | masculine |
| | c. | <i>aux Philippines</i> 'in the Philippines'
<i>aux Indes</i> 'in the West Indies' | plural |

There is no phonological link between *en* (otherwise a locative preposition meaning 'in') and *au/aux* (otherwise a portmanteau of the general locative preposition *à* and the masculine/plural definite article)

The choice between *en* and *au(x)* is based on the gender and the first segment of the toponym

Roadmap (factual and theoretical):

Section 2: the facts: the choice between *en/au(x)*, (lexical-)semantic conditions on their use, modularity violations

Section 3: theoretical background: locatives and loci

Section 4: a DM-style analysis of the morphosyntax of French country names

Section 5: summary

General idea: French portmanteaus should be regarded as inflection (case-inflected articles or definiteness markers) rather than as a combinations of the independent syntactic heads P+DET

Caution: I will say very little about the prepositions *à* and *de* in non-toponymic contexts

2 FRENCH LOCATIVE ENCODING: THE BIGGER PICTURE

French country names have inherent gender (and number)

French city names do not, nor do they require an article

If the country name begins with a vowel, the vowel of the article is deleted irrespective of the gender (just like with common nouns):

- | | | | |
|-----|----|------------------------------------|-----------------|
| (3) | a. | l'Irlande, l'Egypte... | feminine/vowel |
| | b. | l'Afghanistan, l'Angola, l'Iran... | masculine/vowel |

The general non-configurational locative/allative preposition *à* 'at/to' and the genitive/ablative preposition *de* 'of/from' form **portmanteaus with the plural and masculine singular definite articles**:

Table 1: French locative portmanteaus

	à	de
feminine	à la maison at/to DEF.F home _F	de la maison of/from DEF.F home _F
vowel-initial	à l' école/aéroport at/to DEF.M=F school _F /airport _M	de l' école/aéroport of/from DEF.M=F school _F /airport _M
masculine	au bureau at/to+DEF.M office _M	du bureau of/from+DEF.M office _M
plural	aux bureaux/maisons at/to+DEF.PL offices/homes	des bureaux/maisons of/from+DEF.PL offices/homes

The masculine and plural locative portmanteaus are also formed with country names:

- (4) a. au Canada, au Pérou... masculine
b. aux Philippines, aux Indes plural
- (5) a. du Canada, du Pérou... masculine
b. des Philippines, des Indes plural

These processes do not distinguish between proper names and common nouns

2.1 The *en/au* conversion

Feminine and vowel-initial country names behave differently:

- (6) Je suis/vais à la maison/ **en** France.
I am/go at/to DEF.F home_F/ EN France
I am at home/in France. I go home/to France.

Cornulier 1972, Zwicky 1987, Miller, Pullum and Zwicky 1992, 1997: in locative/allative PPs involving country names *en* is used if the proper name is **not plural** and the proper name is **feminine** or the proper name **begins with a vowel**

Cornulier 1972: the portmanteau *en* is used when the portmanteau *au/aux* is not formed:

- (7) a. en France, en Mauritanie... feminine
b. en Irlande, en Egypte... feminine/vowel
c. en Afghanistan, en Angola, en Iran... masculine/vowel

The portmanteau *en* **does not arise to *en* if the toponymic PP is not locative:**

- (8) lié à la France/**en* France

Miller et al. 1992, 1997: The same is true for the ablative *de*:

- (9) a. de France, de Mauritanie... feminine
b. du Canada, du Pérou... masculine
c. d'Irlande, d'Egypte... feminine/vowel
d. d'Afghanistan, d'Angola, d'Iran... masculine/vowel
e. des/**de* Philippines/Indes plural

The article remains if the preposition is not locative:

- (10) discuter de *(la) France

In all these cases **the masculine beginning in a vowel behaves like the feminine**

2.2 Extending the picture: *dans* ‘inside’

The lexical preposition *dans* ‘inside’ can be used with any area-denoting toponym
Abeillé and Godard 2021:852: when there is optionality, *en* is used for a characterizing property, and *dans*, for a contingent one

With **restrictively modified country names** *dans* is used instead of *en/au* with the meaning ‘in’ (Lomholt 1983:126-135;145, Abeillé and Godard 2021:854, see also Homma 2010):

(11) a. *dans l’Algérie/ la France contemporaine/ d’aujourd’hui*
in DEF+Algeria DEF France contemporary of+today
in contemporary/today's Algeria/France

b. *dans l’Iran/ le Canada contemporain/ d’aujourd’hui*
in DEF+Iran DEF Canada contemporary of+today
in contemporary/today's Iran/Canada

(12) a. **en/✓dans l’Alsace libérée*

b. **en/✓dans la Bretagne de mon enfance*

In some situations *dans* and *en/au* seem to be subject to variation (section 2.3)

So the full picture includes **three possibilities, not two**

Unlike the functional prepositions *à* and *de*, ***dans* is a contentful lexical preposition, which never merges with the article**

2.3 The role of the lexical-semantic class

The contrast between masculine consonant-initial toponyms vs. feminine or vowel-initial ones is not limited to country names

In other lexical-semantic classes masculine toponyms may behave differently (see appendix A for the full picture)

(13) French provinces

- | | | |
|----|---|---------------------------|
| a. | <i>en Picardie, en Normandie...</i> | feminine provinces |
| b. | % <i>en/✓dans le/*au Béarn, Poitou...</i> | masculine provinces |
| c. | <i>en/*dans l’Aquitaine, en/*dans l’Alsace...</i> | feminine/vowel provinces |
| d. | <i>en/dans l’Artois, en/dans l’Angoumois...</i> | masculine/vowel provinces |

Two patterns, really:

- The more archaic one: obligatory *en*; replicated for **month names** (*en février*) and **means of transportation** (*en bus, en ski*, cf. Cornulier 1972)
- The contemporary one: ***dans le*** with masculine (consonant-initial) toponyms, *en* elsewhere; somewhat replicated for **French department names** (with a tendency for extending the prepositional approach to the entire lexical semantic class)

Vowel-initial masculine French provinces appear to have an intermediate status

Lomholt 1983:27-225, Grevisse and Goosse 2006:1506-1507, Abeillé and Godard 2021:854-855, etc.: for non-countries there is (a lot of) variation in:

- how masculine consonant-initial toponyms behave
- whether the preposition used with them is *à* (*au*) or *dans* (*le*)

The notion of a lexical-semantic class is non-syntactic

Can the lexical semantics of a toponym determine its morphosyntactic features? If yes, which?

Individual variation suggests item-specific encoding

2.4 Modularity issues and P vs. case

The distribution of the locative *en* is conditioned by:

- semantics: only locative PPs substitute *en* for *à* + DEF
- syntax: on the condition of feminine gender or...
- phonology: vowel-initial stem

Miller et al. 1992, 1997: what about modularity?

Hypothesis: *en/au* and *du/de* involve case marking rather than prepositions

- (i) French country names denote loci (the semantic type of locations; can be used as a locative adverbial without a preposition, cf. *there*)
- (ii) they bear case reflecting their environment (locative or directional)
- (iii) **case is realized on the noun** as a portmanteau with the definiteness feature
- (iv) case exponence of a toponym is determined by its declension class. Tendentially:
 - declension class I: feminine or vowel-initial proper names (& some others)
 - declension class II: the residue
- (v) the locative/allative case is realized as *en/au*, ablative is realized as *du/de*

Side effect: the relation between prepositions and cases and the path to reanalysis

3 LOCATIVE CASE MARKING AND LOCUS-DENOTING NOUNS

Crucial property of *loci*: they do not require prepositions to function as locative adverbials (e.g., *there* is a locative demonstrative)

3.1 Locus-denoting nominals (after Matushansky 2019)

Latin: locative case available for names of towns, cities, and small islands, and a few common nouns, incl. *domus/domi* ‘home’, *rus/ruri* ‘countryside’, and *humus/humi* ‘ground’ (exx. from Gildersleeve and Lodge 1876:266):

- (14) a. *Parvi sunt foris arma nisi est consilium domi.*
 little.PL are outside weapons unless is council home.LOC
Of little value are arms abroad unless there is wisdom at home.
- b. *Militēs Albae cōstitērunt in urbe opportūnā.*
 soldiers Alba.LOC halted in city.ABL convenient.ABL
The soldiers halted at Alba, a conveniently situated town.

A preposition is required if these nouns are modified and with other nouns and toponyms
 Cross-linguistically locative cases frequently have restricted distribution being limited to a subset of nouns (e.g., cardinal points (cf. *north*), (some) toponyms, axial and other locational nouns (e.g., *inside*), etc.), see Appendix D

The same set of lexical items can be used bare as the goal, with accusative case-marking, and as the source, with ablative case-marking (Gildersleeve and Lodge 1876, Allen et al. 1903, Woodcock 1959, Ernout and Thomas 1964, etc.):

Individual authors may give wider distribution to both accusative (Woodcock 1959:4-6) and ablative of source (Woodcock 1959:29-30)

- (15) a. Missī lēgātī Athēnās sunt. Gildersleeve and Lodge 1876:214
 sent.PL envoys Athens.ACC are
Envoys were sent to Athens.
- b. Innumerābilēs (philosophī) numquam domum revertērunt.
 innumerable philosophers never home.ACC returned
Innumerable philosophers never returned home
- (16) a. (Verrēs) omnia domō ēius abstulit. Gildersleeve and Lodge 1876:249
 Verres everything house.ABL his took.away
Verres took everything away from his home.
- b. Dolābella Dēlō proficīscitur. Gildersleeve and Lodge 1876:251
 Dolabella Delos.ABL depart
Dolabella sets out from Delos.

Matushansky 2019: these toponyms and nouns denote loci

English: locative forms available for demonstratives (*here, there*), and simplex wh-words and their derivatives (cf. *where*). Among locative nouns are *home* and cardinal points (*north*, etc.)

Proposal: **French country names and their ilk denote loci**

No commitment as to the precise formalism (see, e.g., Creary, Gawron and Nerbonne 1989, Wunderlich 1991, Zwarts and Winter 2000, Kracht 2002, Bateman et al. 2010, etc.), but the dichotomy is essential

3.2 Locus denotation and modification

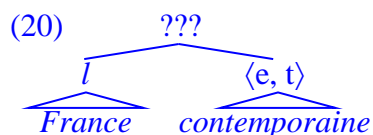
Remember that a modified country name takes the preposition *dans*:

- (17) a. dans l'Algérie/ la France contemporaine/ d'aujourd'hui
 in DEF+Algeria DEF France contemporary of+today
in contemporary/today's Algeria/France
- b. dans l'Iran/ le Canada contemporain/ d'aujourd'hui
 in DEF+Iran DEF Canada contemporary of+today
in contemporary/today's Iran/Canada
- (18) a. *en/✓ dans l'Alsace libérée
 b. *en/✓ dans la Bretagne de mon enfance

Straightforward explanation: type clash:

- (19) a. $[[\text{France}]] = \iota x \in D_1 . x \text{ is France}$ locus denotation
 b. $[[\text{contemporain}]] = \lambda x \in D_e . x \text{ is contemporary}$

Two issues: *France* is entity-denoting, and it is **of the wrong sort** (*l* instead of *e*):



Two type-shifts are needed: a **shift** to the object-denotation (*France* as an object corresponding to the location) and **coercion** of the result to the stage denotation (to enable modification of an entity-denoting constituent)

Both are independently motivated

Coercion (Paul 1994, Gärtner 2004, Jonasson 2005): a modified proper name is coerced into a set of its **aspects** (cf. Landman 1989), a.k.a. **facets** (Kleiber 1981, 2005), temporal **stages** (cf. Carlson 1977) or **spatial parts** (perhaps for toponyms only):

- (21) a. **The upper Rhine** is polluted. material part
 b. **The young W.A. Mozart** visited Paris. temporal stage
 c. I will show you **the secret Paris**. aspect/guise/facet
 d. **The Somerset Maugham that his nephew describes** is a lot more proxy?
 disagreeable than the Somerset Maugham described by Somerset Maugham.

Domain change is needed for the compositional semantics of locative PPs (Zwarts and Winter 2000), see appendix F for details

3.3 Intermediate summary

A subset of toponyms in French exhibits allomorphic realization of their locative marking that is conditioned by the gender and the initial segment of the toponym:

- (22) a. *en France* ‘in/to France’, cf. *la France* feminine
 b. *au Canada* ‘in/to Canada’, cf. *le Canada* masculine
 c. *en Iran* ‘in/to Iran’, cf. *l’Iran* masculine, vowel-initial

Hypothesis: the allomorphs *en/au* realize definite case-marking on locus-denoting nouns

Support:

- cross-linguistically confirmed existence of nouns/toponyms capable of functioning as locative adverbials without a preposition
- restrictions on their modification from locus-denotation

So much for semantics, now for the morphosyntax

4 THE MORPHOSYNTAX OF THE FRENCH LOCATIVE CASE

Hypothesis: *en/au* and *du/de* are case-marked realizations of the definite article (i.e., D, not P, not P+D)

If the realization of definiteness depends on both the gender and the phonology of the toponym, D and the toponym should form one complex head

Proposal: m-merger (Matushansky 2006), see also Embick and Noyer 1999, 2001:

- (23) a.  b. 

A complex head is a proper domain for allomorphy

4.1 French case decomposition

French pronouns distinguish the nominative, accusative and dative cases. Locative/allative and ablative/genitive are encoded by the pronominal clitics *y* and *en*, respectively

And this syncretism is systematic for masculine and plural locative portmanteaus (*au(x)*, *de(s)*)

Hypothesis: the relevant spatial cases (locative, allative, and ablative) are **decomposable**

Jackendoff 1973, 1983, 1990, Bierwisch 1988, Koopman 2000, Tungseth 2003, Zwarts 2005, den Dikken 2010, etc.: directional PPs are more complex (semantically and syntactically)

Bierwisch 1988: directional prepositions are specified [+ dir]

Koopman 2000: for directional interpretation, a locative PP must be contained in the functional projection PathP

Zwarts 2005: directional PPs contain a Path function, in addition to the location



Both allative and ablative imply the presence of a location (\rightarrow assume the feature [LOC])

The proper source of the feature [LOC] will be discussed later

I propose that allative and ablative differ from the pure locative by the addition of the features of the dative (TO) and genitive (OF/FROM), respectively:

Other proposals treating case as formal feature bundles: Jakobson 1936/1971, 1958/1984, McCreight and Chvany 1991, Matushansky 2012; see also Caha 2008, 2010 for a hierarchical model of case

- (25) a. stative location: [LOC]
 b. ablative: [GEN][LOC]
 c. allative: [DAT][LOC]

Since *à* can encode indirect objects ([DAT]), stative location ([LOC]), and allative ([DAT][LOC]), I appeal to the feature [OBL], entailed by all oblique cases (i.e., all cases except nominative and accusative):

- (26) a. stative location: [LOC][OBL]
 b. ablative: [GEN][LOC][OBL]
 c. allative: [DAT][LOC][OBL]
 d. dative: [DAT][OBL]
 e. genitive: [GEN][OBL]

Two impoverishment rules are necessary to account for the genitive/ablative syncretism (in the preposition *de*) and for the locative/allative syncretism (for all locative prepositions):

- (27) a. [LOC] \rightarrow \emptyset / ___ [GEN]
 b. [DAT] \rightarrow \emptyset / ___ [LOC]

The realization of the **definite marker in oblique cases**:

The hypothesis that *à* realizes [OBL] rather than [LOC] (24g) can probably be replaced with a distinction between the conceptualization of objects as points or as containers, but I will not try it here

- (28) a. [DEF][GEN][OBL][PL] \leftrightarrow *des* d. [DEF][OBL][PL] \leftrightarrow *aux*
 b. [DEF][GEN][OBL][II] \leftrightarrow *du* e. [DEF][OBL][II] \leftrightarrow *au*
 c. [GEN][OBL] \leftrightarrow *de* f. [LOC][OBL] \leftrightarrow *en*
 g. [OBL] \leftrightarrow *à*

On the assumption that more specific Vocabulary Insertion rules trump less specific ones, the presence of the genitive feature ensures that ablative is never realized by a non-genitive marker. Once *de* and *en* are taken out of the picture, [OBL] collapses the distinction between allative, locative and dative. But the use of [OBL] in (24a-c) is a mechanical trick, there has to be some other way.

The distinction between *en*-toponyms and *au*-toponyms is handled as a difference in declension class.

For **country names** the declension class is defined by both underlying **gender and phonology**: For the hypothesis that declension classes are emergent rather than underlying and should be viewed as a formal feature bundle see Halle 1992 for Latvian, Nessel 1994, Müller 2004, Alexiadou and Müller 2008, Privizentseva 2023 for Russian, and Börjesson 2006 for Slovene

- [F] → [I]
- V-initial → [I]
- otherwise [II]

Under this view *France* and *Iran* are declension class I and *Canada* is declension class II:

- | | | |
|---------|--|----------|
| (29) a. | Iran _I [M][DEF][LOC][OBL] → <i>en Iran</i> | locative |
| b. | Pérou _{II} [M][DEF][GEN][LOC][OBL] → <i>du Pérou</i> | ablative |
| c. | France _I [F][DEF][DAT][LOC][OBL] → <i>en France</i> | allative |

Vocabulary insertion rules in (24) should be constructed so as to permit their extension to non-toponymic contexts

4.2 Direct cases and non-toponymic uses of *à* and *de*

In non-locative contexts the definite marker does not bear the locative case

Nominative and accusative are not distinguished for non-pronouns:

- | | | |
|---------|----------------------|---------------|
| (24) h. | [DEF][F] ↔ <i>la</i> | first attempt |
| i. | [DEF] ↔ <i>le</i> | |

Problem: (24c/f) and (24h) involve complementary sets of features. Why is (29c) not realized as (*en*) *la France*?

- | | | |
|----------|------------------------------------|------------|
| (29) c'. | *France _I [F][DEF][DAT] | [LOC][OBL] |
| | ↓ | ↓ |
| | <i>la</i> | <i>en</i> |

This sequence is not excluded if *en* is not locative:

- | | | |
|------|---|-----------------|
| (30) | J'aurais perdu ma foi en l'Amérique. | Lomholt 1983:37 |
| | I+would.have lost my faith in DEF+America | |
| | <i>I would have lost my faith in America.</i> | |

The realization of D must be made dependent on the value of the locative feature, which needs to be binary:

- | | | | |
|---------|----------------------------------|----|-----------------------------|
| (31) a. | [DEF][GEN][OBL][PL] ↔ <i>des</i> | d. | [DEF][OBL][PL] ↔ <i>aux</i> |
| b. | [DEF][GEN][OBL][II] ↔ <i>du</i> | e. | [DEF][OBL][II] ↔ <i>au</i> |
| c. | [GEN][OBL] ↔ <i>de</i> | f. | [+LOC][OBL] ↔ <i>en</i> |
| | | g. | [OBL] ↔ <i>à</i> |
| h. | [DEF][−LOC][F] ↔ <i>la</i> | i. | [DEF][−LOC] ↔ <i>le</i> |

Important: **both à and de have non-locative uses** where they form the same portmanteaus in the masculine and in the plural

Their status as prepositions or “markers” is subject to debate (see Kemmer and Shyldkrot 1996, Abeillé et al. 2006, Marque-Pucheu 2008, Abeillé and Godard 2021:820-840, among others)

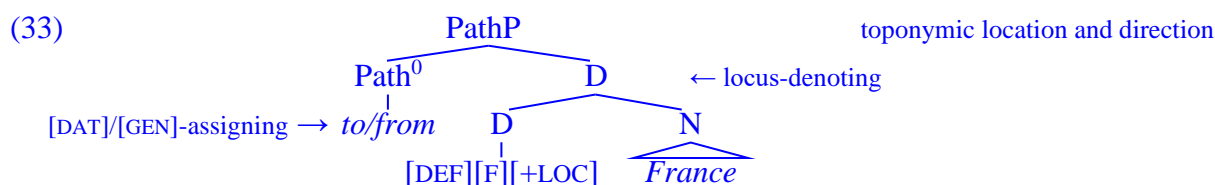
The absence of the definite article accompanying (31c,f) characterizes only toponyms used as locations:

Cornulier 1972: the same pattern with season names: *en hiver/au printemps*

- (32) a. Elle est dans le nord **de la** France/**de l'**Italie/ **du** Canada.
 she is in the North of DEF.F France of DEF.F.Italy of.DEF.M Canada
She is in the North of France/Italy/Canada.
- b. Julie est **à la** mairie/ **à l'**école/ **au** théâtre.
 Julie is at DEF.F townhall at DEF.F.school at.DEF.M theater
Julie is at the townhall/at school/at the theater.

Hypothesis: other uses of à and de are characterized by the lack of [+LOC]

The LOC feature is a property of toponyms (and nouns) denoting *loci*:



The locative use of *France* corresponds to a DP, directional uses require a higher head

I am not committed to assigning the allative and ablative semantics to a PathP, the source is more likely to be the verb (at least for the allative)

The locative clitic *y*, as well as the locative wh-word *où* and the demonstratives *là* and *ci* would all involve the feature [+LOC] on a functional head (D, wh or Dem)

The clitic *en* corresponds to [PRN][GEN]

If the feature [LOC] is determined by the noun (e.g., the lexical semantics of the toponym), why do country names ever appear with the definite article, when (31h-i) require [-LOC]?

Answer: because in non-locative positions they are not locus-denoting

Proposal: in French locus-denoting toponyms can freely shift to object-denotation (appendix F)

5 CONCLUSION AND FURTHER ISSUES

Proposal: locus-denoting toponyms undergoing m-merger with the definite article and marked for case

Allomorphy inside a complex head can be conditioned by both formal features and phonology

The formal feature bundle of case and definiteness can be:

- impoverished (accounting for the syncretism between ablative and genitive)
- expounded by underspecified lexical items (in the case of the allative-locative-dative syncretism)

All these assumptions are independently motivated

Non-locative uses of *à* and *de* do not involve the formation of a complex head or the feature [+LOC]

Non-locative definite articles are exponed as is standard due to being specified as [-LOC]

Crucial assumption: the same feature bundles can be found and exponed in different syntactic environments

So the preposition *en* (whether alternating or not with the preposition *dans*) can be the feature bundle (31f) on P⁰

All French case features are motivated by pronominal clitics (the usual nominative, accusative and dative + the oft-forgotten obliques *en* and *y*)

Locus denotation is needed anyway

Full disclosure: a case-based analysis with declension classes is also motivated for toponyms in Martinican creole (Matushansky 2023), where there are no non-direct non-locative cases and (as expected) no distinction between allative, ablative and locative

Unexpected outcome: because loci end up as definite, this analysis appears to fit best with the treatment of loci as regions rather than sets of points or of vectors (because the latter are non-unique)

Puzzle: the lack of a locus denotation (diagnosed by the obligatory use of *dans*) for masculine and plural toponyms in some lexical-semantic classes (see appendix A.2)

Potential extension: Italian toponyms (appendix D)

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7 APPENDICES

A LEXICAL-SEMANTIC CLASS PATTERNS

First impression: in function of the lexical-semantic class, the distribution of portmanteau variants and the availability of other options change

A.1 French provinces and regions

Two issues at once: the portmanteau pattern does not distribute as it does with countries (no *au* altogether) and for masculine provinces the contentful lexical preposition *dans* is also possible: The variation between *en* and *dans* for masculine province names seems partly historical (*en* is the more archaic variant, dealing with the older feudal province rather than a modern region), partly pragmatic (*dans* also has the “somewhere in” interpretation)

(34) French provinces and regions

- | | | |
|----|--|---------------------------|
| a. | <i>en</i> Picardie, <i>en</i> Normandie... | feminine provinces |
| b. | % <i>en/dans</i> le/* <i>au</i> Béarn, Poitou... | masculine provinces |
| c. | <i>en/*dans</i> l’Aquitaine, <i>en/*dans</i> l’Alsace... | feminine/vowel provinces |
| d. | <i>en/dans</i> l’Artois, <i>en/dans</i> l’Angoumois... | masculine/vowel provinces |

The older obligatory *en* pattern with masculine proper names resurfaces with month names (*en février*) and means of transportation (*en bus*, *en ski*)

Hypothesis: two competing grammars: the older one with *en* throughout the paradigm and the newer one with *dans* for masculine province names (I know at least one native speaker with this latter pattern)

This latter pattern is obvious with French department names

A.2 French department names

French department names, irrespective of gender or initial segment, combine with *dans*, but *en* is possible for (Grevisse and Goosse 2006:1507 and various sources):

departments that have the same name as provinces (*Dordogne*, *Gironde*, *Vendée*, *Vaucluse*, *Savoie*, *Aveyron*)

composite singular toponyms (*Haute-Corse*, *Corse-du-Sud*, *Haute-Marne*, *Haute-Saône*, *Meurthe-et-Moselle*, *Indre-et-Loire*, *Seine-et-Marne*)

This list is a standard description, but all of these cases are **feminine or begin with a vowel** Google searches reveal an abundance of *en* with such department names as *Deux-Sèvres* or *Pas-de-Calais*

Non-French European provinces and regions appear to vacillate between the French province pattern and the French department pattern (see Lomholt 1983:160-162 claiming that it makes a difference whether the region or province in question is Francophone)

A.3 Islands and archipelagoes

It turns out that islands do not behave uniformly with respect to the presence of the article or locative syntax

Vikner 1970, Lomholt 1983:235-245: country-like and city-like islands:

Country-like islands: overt definite article, *en* in the feminine and perhaps with vowel-initial names (I know of no islands that are masculine, definite and begin with a vowel):

The only masculine vowel-initial island name that I have found, *l'Etac de Sercq* 'Little Sark', combines with the locative preposition *dans* (maybe because this is a modification structure, even if idiomatic)

- | | | | |
|------|----|-------------------------------------|----------------|
| (35) | a. | la Corse, la Sicile, la Tasmanie... | feminine |
| | b. | le Groenland, le Spitzberg | masculine |
| | c. | l'Irlande, l'Islande... | feminine/vowel |
| (36) | a. | en Corse, en Sicile, en Tasmanie | feminine |
| | b. | au Groenland, au Spitzberg | masculine |
| | c. | en Irlande, en Islande | feminine/vowel |

When modified, they appear with the locative preposition *dans* (Vikner 1970:240)

City-like islands: no article, the locative preposition is *à*; the article is absent in the ablative; may contain a definite article as part of the proper name itself:

- | | | |
|------|----|--|
| (37) | a. | à/de Terre-Neuve, à/de Belle-Ile, à/de Bornholm |
| | b. | à/de Madagascar, à/de Malte, à/de Borné |
| | c. | (à/de) la Réunion, (à/de) la Nouvelle-Amsterdam, (à/de) la Grenade |

I am aware of no masculine city-like islands with the definite article

What about **the gender of city-like islands**?

Grammars assert that some city-like islands are masculine, but do not agree on which islands are (cf. Lomholt 1983:237-240). Neither do native speakers

The picture is reversed for archipelagoes (most of which are plural, anyway): they are, to the best of my knowledge, masculine when bare (as is the word for archipelago, *archipel*):

- | | | |
|------|----|---|
| (38) | a. | le Svalbard (au/du), le Vanuatu (au/du) |
| | b. | Madère (à/de), Zanzibar (à/de) |
| | c. | le Dodécanèse (dans le/du) |
| | d. | la Côte-Froide (à/de) |
| | e. | la Nouvelle-Zélande (en/de) |

To the best of my knowledge, no one treats archipelagoes as a separate lexical-semantic class, even though realistically they are very different from islands

Lexical exceptions: some islands allow both: *en/à la Martinique*, *en/à la Gouadeloupe*, but also *en/à Haïti*, sometimes for the same author within the same text (Vikner 1970:238); with the ablative *de* the article cannot be omitted (*ibid.*), but Lomholt 1983:244 is more cautious, claiming simply that the drop of the definite article is not as frequent as the use of *en*

A.4 US states, Canadian provinces, other compositional administrative units

Compositional administrative units of federal states permit a lot of options (see Lomholt 1983: pp. 140-141 for masculine V-initial toponyms, pp.151-155 for C-initial ones):

- (39) a. en Californie, Caroline du Nord, Caroline du Sud... feminine states
 b. {en/%dans l'} Alabama, Alaska, Arizona, Arkansas... vowel-initial masculine states
 c. {dans le/au} Colorado, Connecticut, Delaware... masculine states
 d. à Hawaï island

Prescriptive sources show a lot of variation

A.5 The residue

Continents behave like loci; as they are all feminine and begin with a vowel, *en*.

Rivers generally take the lexical prepositions *dans* and *sur*, as well as *à*; feminine ones may accept *en*. No information on vowel-initial river names in Lomholt:

- (40) a. Celle-ci évita d'être [...] jetée en Loire. Lomholt 1983:285
 this.FSG-PROX avoided of+be.INF thrown in Loire
This one avoided being thrown into the Loire.
- b. le corps d'un inconnu repêché dans la Seine. Lomholt 1983:285
 the body of+INDEF unknown fished.out in the.FSG Seine
an unidentified body fished out in the Seine

Most other toponyms (e.g., **oceans, seas, lakes, bays, mountain chains**, etc.) take *dans*.

A.6 The puzzle

If the *en/au* pattern corresponds to locus denotation, what about the *en/dans* pattern?

Can locus denotation be constrained by gender? (Maybe, but not by the initial segment!)

Possible response: in the *en/dans* pattern *en* is a preposition rather than a case-marker... but where is the article?!

Intuition: the system is slowly moving towards true declension classes

B FURTHER SUPPORT: BARE URBAN LANDMARKS

French has bare locatives, i.e., **French has locus-denoting NPs**

Stolz, Lestrade and Stolz 2014:ch.4.1: bare urban landmarks used as locations:

More research in Palm 1989, but I don't have it

- (41) a. Vous êtes allé hier rue Notre-Dame-de-Lorette.
 you.PL be.2PL go.PRTCPL yesterday street Notre-Dame-de-Lorette
You went yesterday to the Notre-Dame-de-Lorette street.
- b. Ils arrivèrent dans la rue de la Grande-Turanderie.
 they arrive.PAST.3PL in the.FSG street of the.FSG Grande-Turanderie
They arrived [somewhere] in the street of Grande-Turanderie.

The presence of internal *de* seems orthogonal (cf. Bosredon and Tamba 1999)

NP-internal and/or locational use is also possible:

- (42) ... une chambre à l' Hôtel des Cinq Continents **avenue de la République** SLS2014
 a room to the Hôtel des Cinq Continents avenue de la République
 [Your Marcel has rented] a room at the Hôtel des CC on avenue de la R.

The default use of street names as locations or goals is **without a preposition**, and without an article, which resurfaces in argument positions and with lexical prepositions:

- (43) Quand le taxi s'arrêta sur le boulevard Richard-Lenoir...
 when the taxi stopped on the boulevard Richard-Lenoir...
 When the taxi stopped on the boulevard Richard-Lenoir...

This is how we expect locus-denoting NPs to behave in a language that has no morphological case on nouns

Remember for the future: the behavior of the article!

Hypothesis: they denote loci

These toponyms are not specified for declension class and thus cannot be case-marked

The corresponding entity-correlates must have the article

Possibility: the definite article only occurs with the entity-denotation (and then *en/au* is a case marker on anarthrous proper name)

Or: both anthroponyms and toponyms can be anarthrous, so loci-denoting toponyms also can be

C PRIOR TREATMENTS OF THESE FACTS

Cornulier 1972: **the definite article remains iff it is phonologically incorporated into the preposition** (with *au* and *aux*). This is counter-cyclic and non-explanatory

Zwicky 1987: *en*, like *au* and *aux*, is a portmanteau morpheme realizing two syntactic positions, P_{LOC} + FSG; there is a special rule of referral, replacing the masculine form with the feminine one, that is activated for proper names beginning with a vowel. However:

elsewhere, elision (*à l'*) has priority over contraction (*au*); with possessives and definite articles feminine is replaced with masculine (*mon amie, l'amie*)

there are lexical exceptions (*Danemark, Portugal & Luxembourg* used to take *en*; and old provinces still do so sometimes, as in *en Limousin*)

Fahlin 1942 via Molinier 1990: while there is historical development (*en le* → *el* → *eu* → *ou* → *au*), its timing (XIII c.) does not support the hypothesis that the underlying representation is *en* + DEF rather than *à* + DEF

Grevisse and Goosse 2008:1351: *à la* was used with feminine country names up to the XIX century

Miller 1992, Miller et al. 1997: French determiners and the prepositions *à*, *de* and *en* must be analyzed not as syntactic words but as **phrasal inflections** which are lexically realized on the first word of the NP

Theoretical issue: what is phrasal inflection?

Homma 2010: punctual objects are masculine, extended ones are feminine (explicitly ignores phonology)

Major problem: modularity

And none of them has looked at the full empirical picture

D RESTRICTED LOCATIVES

It turns out that locative cases frequently have restricted distribution:

Locative cases **restricted to toponyms and certain common nouns** (Latin; Biblical Hebrew locative *he*: Hoftijzer 1981, Waltke and O'Connor 1990, Arnold and Choi 2003, Medill 2013, etc., some remnants in Modern Hebrew; Itzaj Maya: Hofling 2000:219)
only these denote loci

Locative case-marking optional or absent for toponyms and some common nouns (Biblical Hebrew: Waltke and O'Connor 1990; Tswana: Creissels 2009; Western Armenian: Guekguezian 2011; Yimas: Foley 1991:165, 170-171; Gurr-goni: Green 1995:35)
only these denote loci

Special locative case forms for toponyms and some common nouns (Hungarian (a handful of toponyms and a few common nouns): Rounds 2001:118; Agul, Archi, Avar, Lezgian, etc.: Daniel and Ganenkov 2009; Basque)
only these denote loci

The case paradigm for toponyms and certain common nouns restricted to locative cases and genitive (Bagvalal: Daniel and Ganenkov 2009, Diyari: Austin 2013:52)
these denote only loci

Limiting cases: locative forms only available for demonstratives, simplex wh-words and their derivatives (e.g., the English *here, where, there*; also *home*)

In a lot of languages there are locus-denoting nouns and toponyms that can be identified by their syntax (see also Haspelmath 2019 for an alternative view)

E ITALIAN TOPONYMS

The realization of definite articles and spatial prepositions with Italian toponyms is subject to a different set of constraints

The definite article is obligatorily absent for (bare) city names and obligatorily present for all other toponyms (Proudfoot and Cardo 2002:15-16) in argument positions:

- (44) a. Firenze 'Florence', Londra 'London'
b. le Alpi 'the.PL Alps', il Tamigi 'the.MSG Thames', la Italia 'the.FSG Italy'

As in other languages, restrictive modification triggers the presence of the definite article:

- (45) la Firenze del Settecento
the.F Florence of.the eighteenth.century

As in French, the definite article may fail to appear on the surface in locative uses, although in Italian the effect is limited to the locative/directional prepositions *a* and *in* 'in'

The difference between cities and regions translates into the choice of a preposition: *a* vs. *in* (both translating into the same prepositional variant with modification)

- (46) a. a Roma 'in Rome' vs. nella Roma imperiale 'in Imperial Rome'
b. in Italia 'in Italy' vs. nell'Italia meridionale 'in southern Italy'

The locative + definite combination is realized as *in* with feminine toponyms, unless they are restrictively modified:

- (47) a. in/*nella Italia 'in Italy'
 b. nell'Italia meridionale 'in southern Italy'

With bare masculine toponyms both variants are allowed, with plurals only the composite:

- (48) a. in/nel Veneto/Lazio masculine
 b. nei/*in Paesi Bassi, nelle Marche plural

Again, restrictive modification makes *in* impossible

Syntactically complex toponyms pattern with restrictively modified toponyms in allowing the preposition-determiner combination *nel/nella*, but *in* is also sometimes possible:

- (49) a. in/nella Nuova Guinea, in/nella Unione Sovietica, in/nella Corea del sud feminine
 b. *in/nella Guinea Equatoriale, *in/nella Guyana Francese

- (50) nel/?in Timor Oriental, nel/*in Regno Unito, nel/*in Dakota del sud masculine

Islands may be feminine and bare (*Rodi*, *Miconos*, *Cipro*), feminine and definite (*la Corsica*, *la Sardegna*) or masculine and definite (one example: *il Madagascar*). I don't know whether there is a correlation with the realization of the locative preposition, but my impression is that it is the same city/country (= two-dimensional vs. three-dimensional object) distinction again

F LOCATIVE SEMANTICS

Many different technical approaches to the semantics of spatial prepositions (Bierwisch 1988, Wunderlich 1991, Zwarts and Winter 2000, Kracht 2002, Bateman et al. 2010, etc.). All agree: **locative prepositions operate with loci** (regions, sets of points, sets of vectors, etc.)

Directional prepositions might be more complicated

We minimally need the semantic **type for loci** and a function to **map an entity to its locus**

Wunderlich 1991: the *eigenspace* of an entity is the region that it occupies (obtained by the application of the primitive function **EIGEN**)

A preposition applies to a locus (e.g., a set of points) and returns another locus

The NP complement of a preposition should be coerced into a locus denotation:

- (51) the TV EIGEN ([[the TV]]) *above* (EIGEN ([[the TV]]))
-

This is obviously a simplification, as much more syntactic and semantic complexity has been proposed for PPs (Zwarts and Winter 2000: vector spaces; Koopman 2000, Zwarts 2005, den Dikken 2010: Path; Svenonius 2008, 2010: Deg and K; Radkevich 2010: M, etc.)

Observation: locative PPs can function as modifiers of entities (NP-internally) or events (VP-internally):

- (52) a. a house in New York
 b. to live/walk in New York

For the former case, direct composition is impossible; **must shift from a locus** (however it is defined) **to a set of entities** (type $\langle e, t \rangle$). A very reasonable assumption for the latter case as well

Hence EIGEN^- : maps a locus to the set of entities (type $\langle e, t \rangle$) that are located at this locus:

$$(53) \text{EIGEN}^- =_{\text{def}} \lambda l . \lambda x . \text{EIGEN} (x) \subseteq l \qquad \text{EIGEN}^- (\textit{above} (\text{EIGEN} ([\textit{the TV}])))$$



EIGEN^- **cannot be a lexical part of spatial prepositions**, since spatial PPs can be augmented by directional prepositions and modified:

- (54) a. [[**six feet**] [behind the house]]
 b. [**from**] [under the bed]

The head hosting EIGEN^- could be the source of the (stative) locative case

A shift **from a locus to the unique object** occupying that locus can be done by the combination of EIGEN^- and a maximization operation akin to the regular definite article: EIGEN^+ returns the maximal object occupying the relevant region:

$$(55) \text{EIGEN}^+ : \text{maps a locus to the unique entity located at this locus} \\ \lambda l . \iota x . \text{EIGEN} (x) = l$$

This is how locus-denoting toponyms can appear in argument positions