Mapping gender assignment in French: Nominal categories and features

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Gender assignment in French is often presented as arbitrary

(1) a. *la souris  "the mouse"
   b. *le souris  " "

(2) a. le chien  "the dog"
   b. la chienne  " "

(3) a. *la maison  "the house"
   b. *le maison  " "

(4) a. *la jambon  "the ham"
   b. le jambon  " "
Overview

- **Goals**: (1) describe nominal classes and (2) create a feature that can account for the differences between these categories

- What is gender?
- What is gender in French?
- **How is gender distributed among nominals?**
- How can gender be represented in a feature?
- Where to go from here?
What is gender?
Defining gender

• Hockett (1958, p.231):
  – “Genders are classes of nouns reflected in the behavior of words.”

• Corbett (1991):
  – Dual definition of gender: category and classification
  – Hockett provides a classificatory definition
What is gender?
Semantic versus Formal assignment

• Assignment
  – How is a particular nominal paired with a particular gender or sub-gender?
  – What are the relevant linguistic and conceptual properties that drive assignment?
• Corbett (1991) makes a broad distinction between formal and semantic gender assignment
What is gender?
Semantic versus Formal assignment

• **Formal** assignment: **Phonomorphological**
  – Assigns *uninterpretable* sub-genders
    • Satisfies grammaticality condition *only*

• **Semantic** assignment: **Conceptual**
  – Assigns *interpretable* sub-genders
    • Satisfies grammaticality condition *and*
    • Denotes relevant and salient conceptual properties
      – e.g. humanness, animacy, sex, etc.
Two broad genders (Jones, 1996)
- Masculine (M or m)
- Feminine (F or f)

All nominals in French are assigned one of these two genders

(5) L’étudiant intelligent est allé à l’école
    DET.M.student.M intelligent.M be went.M to the.f.school.f
    “The intelligent (male/unknown) student went to school.”

(6) L’étudiante intelligente est allée à l’école
    DET.F.student.F intelligent.F be went.F to the.f.school.f
    “The intelligent (female) student went to school.”
What is gender in French?
Genders and Sub-genders

- Two types of sub-gender (four total):
  - Uninterpretable (m or f)
    - Masculine OR feminine assigned based on phonomorphological properties of the “surface form”
  - Interpretable (M or F)
    - Masculine OR feminine assigned based on the sex of the referent
    - masculine=male referent; feminine=female referent
How are the sub-genders distributed?

Overview

- **Inanimate** Nominals
  - Nominals with an inanimate referent
  - **Formal** system and **uninterpretable** gender

- **Regular Animate** Nominals
  - Nominals with an animate referent
  - **Semantic** system and **interpretable** gender

- **Epicene Animate** nominals
  - Nominals with an animate referent
  - **Formal** system and **uninterpretable** gender
How are the sub-genders distributed?

Inanimate nominals

• Tucker, Lambert, and Rigault (1977)
  – First account of formal gender assignment in French
  – *Together*, their **phonological** and **morphological** rules account for 84.5 percent of French gender assignment
  – Remaining 15.5 percent assigned via semantic system

• **Morphological assignment rules**: consider the morphological structure of the surface form
  – **VERB + X = MASCULINE NOMINAL**
    
    (7) *le porte-monnaie* (m) “the purse”
    
    *porter* “to carry” + *la monnaie* (f) “money/change”
  
  – Accounts for 100% of nominals of this form
How are the sub-genders distributed?

Inanimate nominals

- **Phonological assignment rules**: Consider final, penultimate, and antepenultimate phonemes
  - Words ending in /ɛzõ/, /sjõ/, /zjõ/, /ʒjõ/, and /tjõ/ are feminine
  - All other words ending in /õ/ are masculine
  - Accounts for 98.2% of nominals ending in /õ/
  
  (8) *maison* (f) /mɛzõ/  
  “house”

  (9) *jambon* (m) /ʒãbõ/  
  “ham”
How are the sub-genders distributed?
Animate nominals: Regular animates

- Suppletive form
  - Utilizes distinct roots based on the sex of the referent

(10) a. *la brebis* F “the ewe”
    b. *le belier* M “the ram”
    c. *le mouton* m “the sheep”
  
- Default is an additional root with either masculine or feminine uninterpretable gender (10c)
How are the sub-genders distributed?
Animate nominals: Regular animates

- Morphological change form
  - Modifies the phonomorphological form of the root depending on the sex of the referent

(11) a. *l’étudiant*  M/m  “the (male/unknown) student”
    b. *l’étudiante*  F  “the (female) student”
  - Feminine is often realized phonologically with consonant-final pronunciation
  - Masculine uninterpretable gender is always the default
How are the sub-genders distributed?

Animate nominals: Regular animates

- Determiner change form
  - No change in root, but visible change in determiner agreement

  (12) a. le ministre M/m “the (male/unknown) minister”
  b. la ministre F “the (female) minister”

- Masculine uninterpretable gender often is, but need not be, the default form
How are the sub-genders distributed?

Animate nominals: Epicene animates

- Epicene animates
  - No change in gender regardless of the sex of the referent
  - Only receive uninterpretable gender

(13) a. *la souris*  
   f  
   “the (male/female/unknown) mouse”

   b. *la souris mâle*  
   f  
   “the male mouse”

   c. *la souris femelle*  
   f  
   “the female mouse”

- Can lead to sex/gender incongruency (13b)
- Can occur with masculine or feminine nominals
How can the sub-genders be represented?
Features: Overview

- Type
- Specification
- Valuation
- Interpretability
How can the sub-genders be represented?
Features: Type

- A deduction of relevant and sufficient semantic-conceptual information
- Two possibilities: \[+/- \text{MASC}\] or \[+/- \text{FEM}\]

(14) Elles aiment la musique
    \[\text{PRO.3.PL.F like.3.PL DET.f music.f}\]
    “They (group of all females) like music”
    \[\# \ “They (mixed group of males and females) like music”\]

(15) Ils aiment la musique
    \[\text{PRO.3.PL.M like.3.PL DET.f music.f}\]
    “They (group of all males) like music”
    “They (mixed group of males and females) like music”

- \[+/- \text{FEM}\] is the only one that can account for these data
How can the sub-genders be represented?

Features: Specification

• Refers to whether or not a feature is present or housed on a particular head
• Nominalizers, determiners, complementizers, adjectives, and verbs can be specified
• A head that enters the derivation unspecified stays unspecified
How can the sub-genders be represented?

Features: Valuation

- Pesetsky & Torrego (2007) and Kramer (2009, 2013)

Valuation: an agreement condition that must be satisfied before a head can be interpreted by PF.
- A single head enters the derivation as valued
- **Controller** head: the “controller” of agreement (valued)
  - Nominalizer (little *n*)
- **Target** heads: the “targets” of agreement (unvalued)
  - Determiners, adjectives, complementizers, verbs
How can the sub-genders be represented?
Features: Interpretability


- **Interpretability**: whether or not a feature on a particular head makes a semantic contribution.
  - **Interpretable**: makes a semantic contribution, assigned via the semantic system
  - **Uninterpretable**: *no* semantic contribution, assigned via the formal system
  - No deletion of uninterpretable features prior to LF interpretation (contrary to Chomsky (2000, 2001) and P&T)
  - How many heads enter the derivation as interpretable?
How can the sub-genders be represented?

Features: Putting it all together

- **Uninterpretable** gender in French
  - Masculine: \([u: - \text{FEM}]\)
  - Feminine: \([u: + \text{FEM}]\)
  - Assigned to *inanimate* and *epicene animate* nominals

- **Interpretable** gender in French
  - Masculine: \([i: - \text{FEM}]\)
  - Feminine: \([i: + \text{FEM}]\)
  - Assigned to *regular animate* nominals
Where to go from here?

Distributed Morphology

- Implement features into a syntactic framework
- Following Kramer (2009, 2013), I am working on incorporating my observations into DM.

\[
\text{DP} \\
\text{D} \quad \text{nP} \\
\text{[ +/- GENDER]} \\
\text{AGREE} \\
\text{n} \quad \sqrt{P} \\
\text{[ +/- GENDER]} \\
\]
Where to go from here?

Agreement

• Must account for concord (DP-internal agreement) and “regular” agreement (clausal agreement)
• Agree can no longer be one-to-one a la Chomsky (2000, 2001)
• Solution: Agreement as feature sharing, or one-to-many (Pesetsky & Torrego, 2007)
What sort of experimental evidence exists to support the distinction between interpretable and uninterpretable gender?

As it turns out, there is a ton!

The short of it:
- Inanimate nominals show no effect of gender in object categorization
- Regular animate nominals do show an effect of gender in categorization tasks
- What about the epicene animates?
Conclusions

- There are four sub-genders in French
- There are three broad categories of nominals
- The above facts can be captured by a single feature type differing in specification, valuation, and interpretability
- This entire account can be extended into (at least) three other research areas
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