Modeling the Birth of a Literary Archetype

The Case of the Detective Figure in French Fiction

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Sixth Conference on Computational Humanities Research - Luxembourg 2025

The archetype we think we know

Sherlock Holmes

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Rouletabille

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- Strong visual code: hat, coat, pipe/cane, urban setting, solitary male figure.
- A very *recent*, audiovisual construction (late 20th - 21st c.).
- **Does this icon match what detectives actually look like in *150 years of fiction*?**

Detecting the textual archetype at scale

- **Not only a costume**
  Archetype = recurrent *textual patterns*: roles, actions, body verbs, way of speaking, network position.
- **Reasoning machine vs. other models**
  From Poe/Doyle's logician to Maigret's empathy or Lupin's trickster.
- **Unity or multiplicity of the archetype?**
  If we set aside the TV icon, do 150 years of novels still converge towards a common, scalable "detective" profile?

Nestor Burma, 1995

Research questions

General aim

Use computational tools to model the **construction** and **evolution** of the **detective archetype** in French literature.

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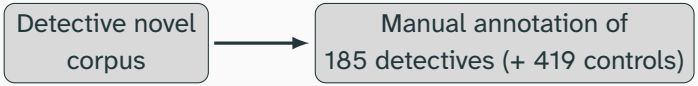
- **RQ1 – Archetype unity**
  Can a model reliably recognize a *stable core* of the detective archetype across 150 years?
- **RQ2 – Archetype emergence**
  When does the detective move from a secondary figure to the **narrative pivot**?
- **RQ3 – Semantic trajectory**
  How does the detective evolve from a cold rational reasoner to an **emotionally engaged**, morally ambiguous figure?

Methods pipeline

Detective novel corpus

Methods pipeline



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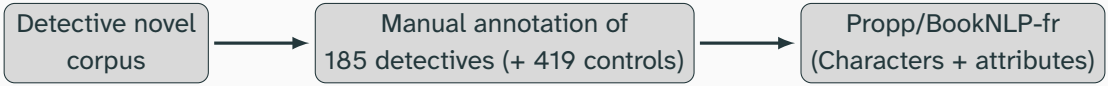

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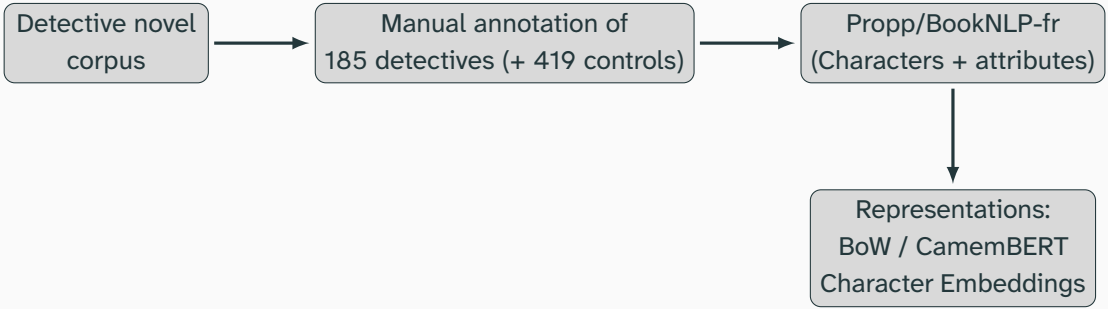

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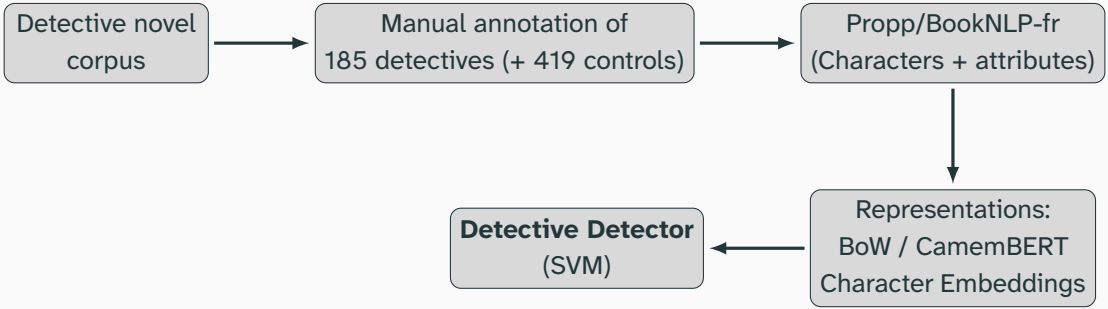

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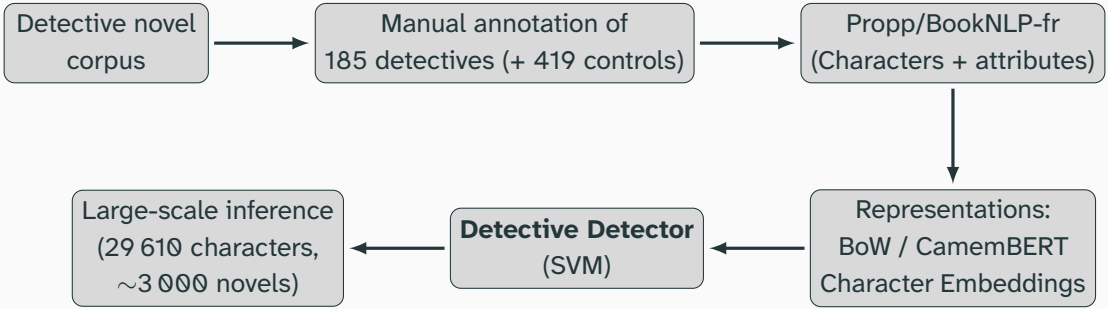

Methods focus

Character Embeddings

- **Character attributes**: agentive / passive verbs, modifiers (adjectives/predicates), possessives.
- **BoW**: 1000 most frequent attributes
- **CamemBERT$_{\text{LARGE}}$**: averaging all Bert embeddings of all attributes per character

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Learning & evaluation

- SVM and Logistic Regression (stratified 5-fold CV)
- **LOGO** (character, author, time periods) to prevent leakage
- Main metric: *balanced accuracy*

Results

Model	B.Acc.	F1 (Det.)
BoW + SVM	0.895	0.84
CamemBERT + SVM	**0.923**	**0.887**

Table 1: Detector performance (stratified 5-fold CV)

Results

Model	B.Acc.	F1 (Det.)
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LOGO (Author)	0.908	0.873
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Applied to full corpus:
713 detectives predicted
(out of 29 610 characters)

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Lexical specificity of the archetype

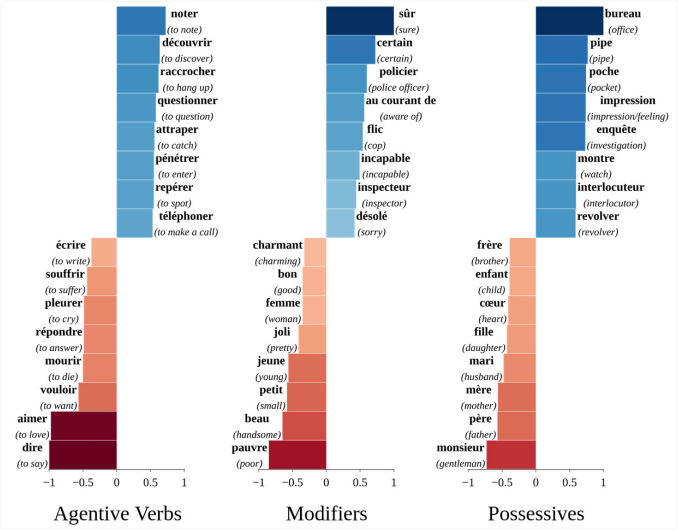

Figure 1: Most/least distinctive attributes of detectives (log-odds z-scores)

RQ2 – Archetype emergence

At scale: *When* do detectives appear?

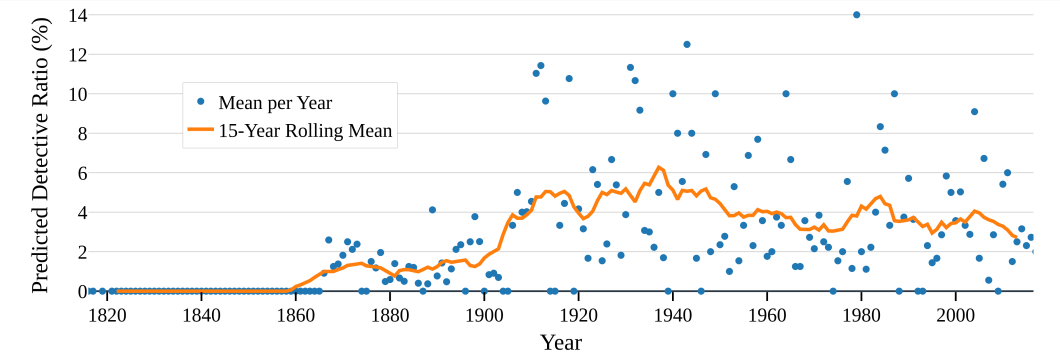

Figure 2: Ratio of detectives among all characters.

RQ2 – Archetype emergence

At scale: how *central* are they?

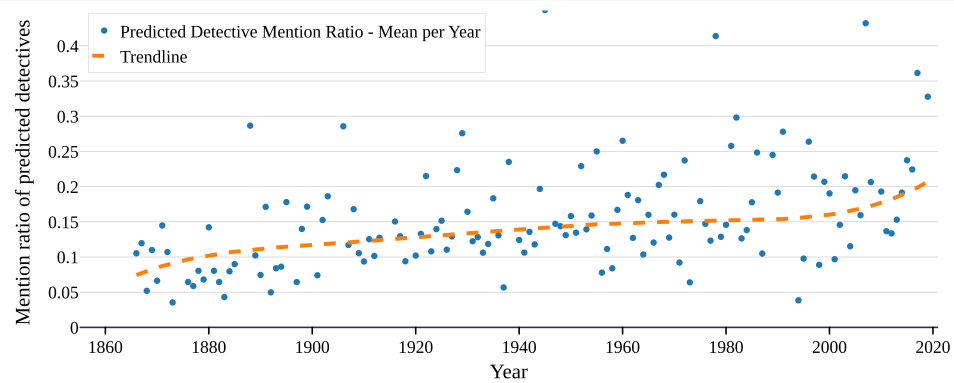

Figure 3: Mention ratio (share of text for main detective).

Three clusters: Three variations of the archetype.

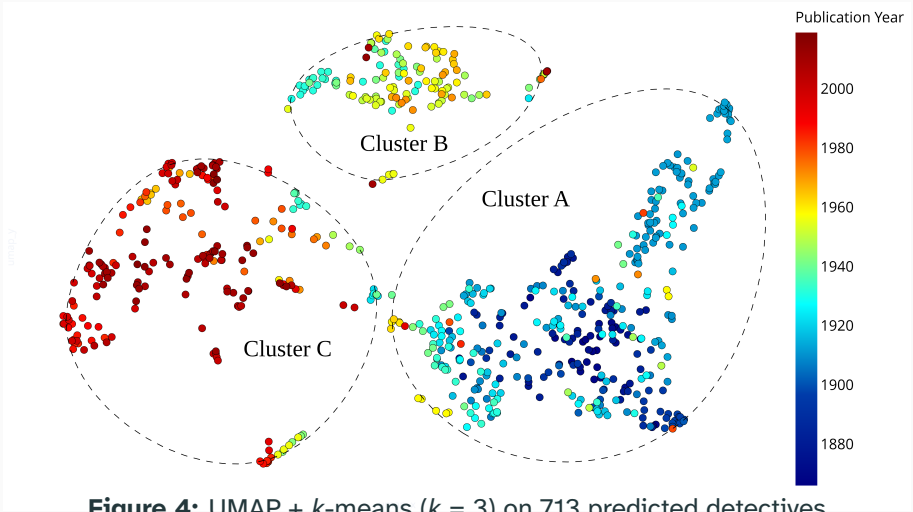

Figure 4: UMAP + *k*-means ($k = 3$) on 713 predicted detectives

Lexical specificities per period

A — Classical	B — Empathic/procedural	C — Hardboiled/neo-polar
Verbs: say, exclaim, answer, declare, murmur, reply, question	**Verbs**: question, phone, suppose, look, smoke, drink, remember	**Verbs**: feel, catch, put down, *fuck*, spot, put on, run into
Modifiers: dear, young, brave, honest, mysterious	**Modifiers**: sure, gloomy, police, drunk, tired	**Modifiers**: alone, responsible, aware, cop, guy
Possessives: friend, revolver, office, duty, master	**Possessives**: pipe, office, overcoat, hat, pocket	**Possessives**: jacket, phone, car, face, father/mother

Table 2: Distinctive attributes of the three periods

A $\rightarrow$ dialogic rationality;

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A $\rightarrow$ dialogic rationality;
B $\rightarrow$ Maigret-like empathy (pipes, offices, overcoats);
C $\rightarrow$ immersion in bodies, violence, vulgarity.

Discussion

Revised periodization of the French detective novel

- **1866–1927** *Proto/classical rational phase*
  Import and adaptation of the English model (Poe, Doyle): investigation as a logical game, the *reasoning* detective (Gaboriau, Leroux, etc.).

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- **1927–1945** *Classical francophone model*
  Stabilization of the classic form (Simenon's Maigret, major popular cycles): empathy, social embeddedness, institutional police.

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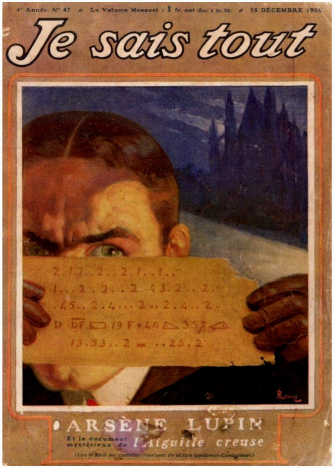
  Stabilization of the classic form (Simenon's Maigret, major popular cycles): empathy, social embeddedness, institutional police.
- **1945–2020** *American influence and generic explosion*
  Série noire, hardboiled adaptation, *néo-polar*, espionage: violent immersion, moral ambiguity, generic hybridizations.

Perspectives

- Centrality in Character Networks
- Multilingual: International exchanges in the construction of the archetype
- Towards “degrees of detectiveness” - Case Study on *Arsène Lupin*
- Other archetypes (criminal, victim, sidekick)?



Arsène Lupin, *L'Aiguille creuse*
(15 décembre 1908)

Thank you!

Code & data

github.com/lattice-8094/DETECTIVES

Contact

jean.barre@ens.psl.eu

Paper, code & viz – jeanbarre.eu

Controls & Limitations

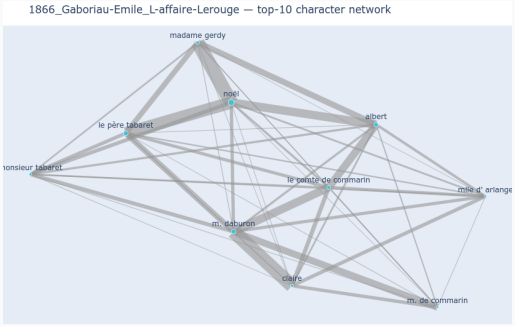
General Drift Control

- Comparing with non-detective controls shows that some drift is general (language change)
- But the middle period diverges strongly → genuine **genre-specific** evolution.

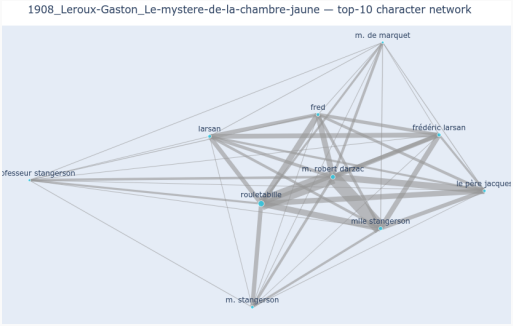
Limitations

- No negation / multi-word expressions
- Still noisy coreference chains

Examples of character networks



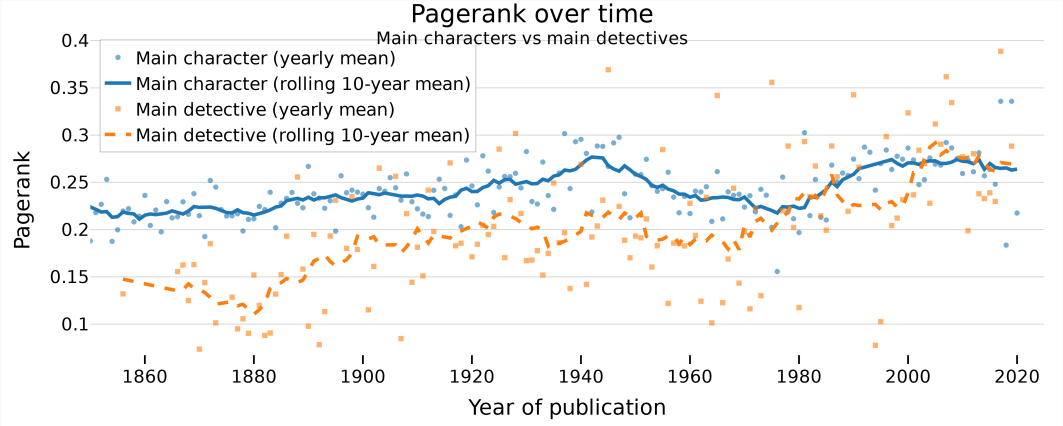
(a) Gaboriau, *The Lerouge Affair* (1866)



(b) Leroux, *The Mystery of the Yellow Room* (1908)

Two automatically extracted networks (top 10 characters)
Computing PageRank for each predicted detective

Result: detective centrality over time



Points: yearly average

Lines: 10-year moving average