

THE NEVER ENDING STORY

*The Cultural Evolution
of Narratives*



Part VII...

THE NEVER ENDING STORY

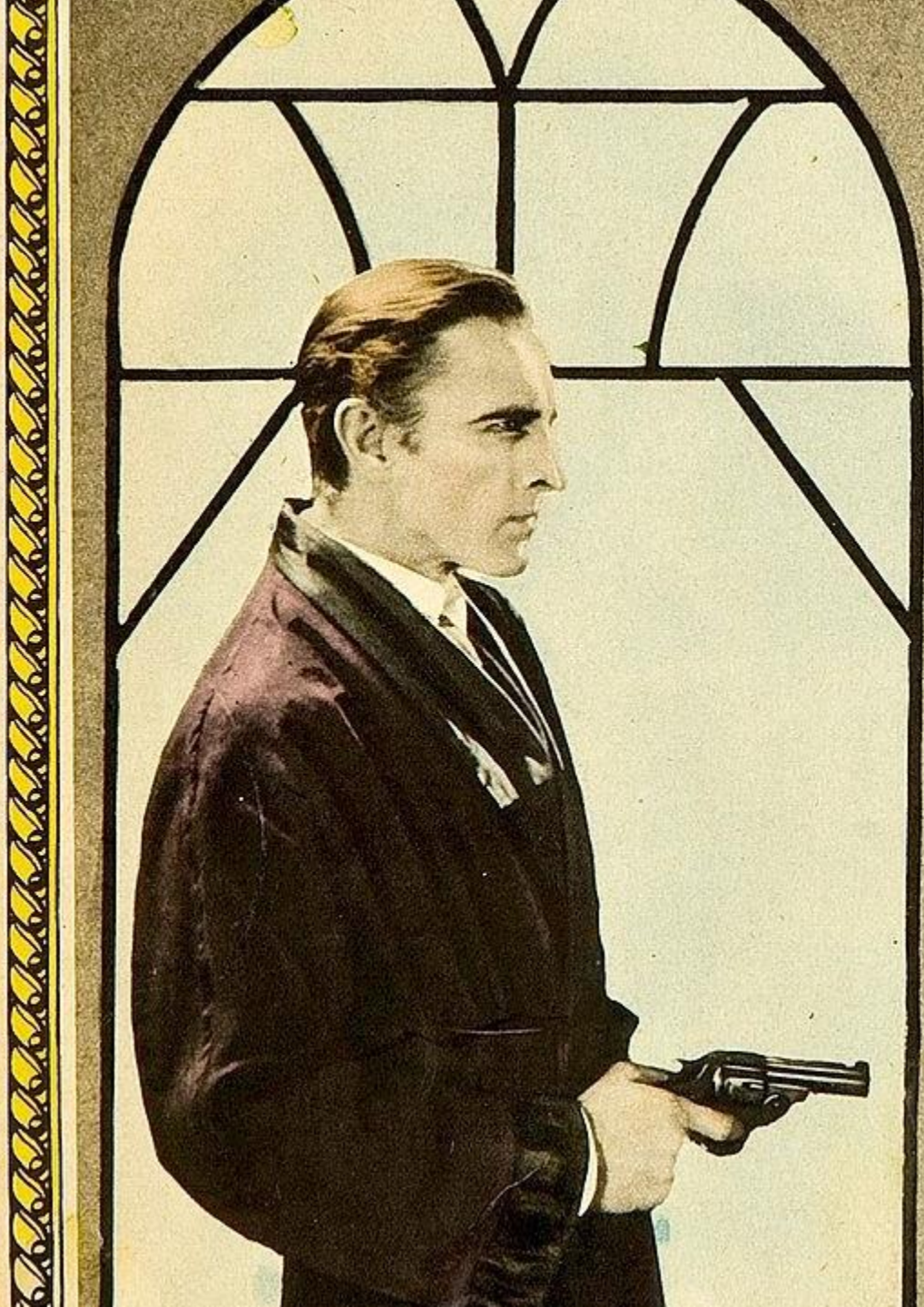
*The Cultural Evolution
of Narratives*



By

Joe Stubbersfield

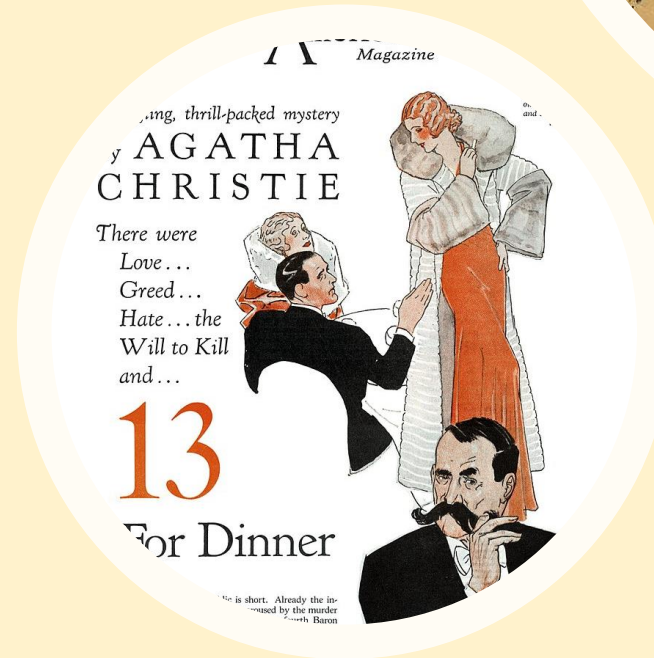
Oleg Sobchuk



CRIME

Crime fiction

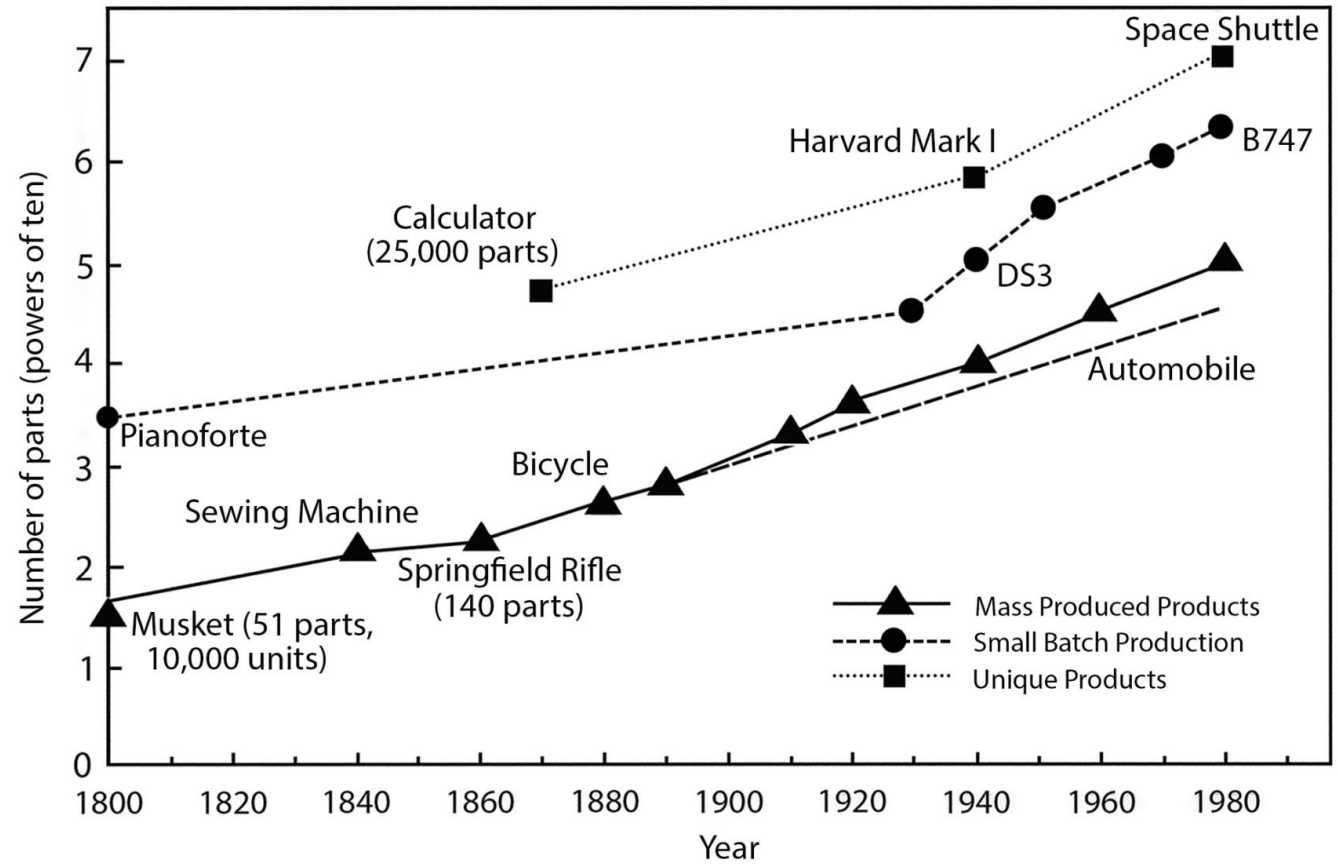
- Mysteries, thrillers, whodunnits, police procedurals and detective fiction
- Account for 20-40% of all fiction book sales in Western world
- Popular on TV and in film
- Feature complex plots including suspense, mystery and intrigue
- Provide a puzzle to solve



Complexity in culture

Observed in technology

- Number of parts



(Ayres 1992)

Do narratives become more complex?
How do we measure complexity in
narratives

Are stories becoming more complex?

Using the Google N-Gram corpus to measure cultural complexity

Patrick Juola
Duquesne University, USA

“This alone indicates an increase in the complexity of written culture”

Juola, 2013, p.672

Table 1 Number of 2-gram types by year

Year	# types
1900	17,769,755
1910	22,834,741
1920	22,409,426
1930	19,745,549
1940	20,369,679
1950	23,632,749
1960	27,379,411
1970	34,218,686
1980	34,458,083
1990	37,796,626
2000	41,654,264

Cumulative cultural evolution

The ideas of what it is and how to explain it... vary

LETTER

doi:10.1038/nature12774

Experimental evidence for the influence of group size on cultural complexity

Maxime Derex¹, Marie-Pauline Beugin¹, Bernard Godelle¹ & Michel Raymond^{1,2}

ARTICLE

<https://doi.org/10.1057/s41599-019-0361-3>

OPEN

Escaping optimization traps: the role of cultural adaptation and cultural exaptation in facilitating open-ended cumulative dynamics

James Winters^{1*}

Complexity and technological evolution: What everybody knows?

Krist Vaesen^{1,2} · Wybo Houkes¹

Human cumulative culture: a comparative perspective

Lewis G. Dean^{1,*,†}, Gill L. Vale^{2,†}, Kevin N. Laland¹, Emma Flynn³ and Rachel L. Kendal²

PROCEEDINGS B

rspb.royalsocietypublishing.org

What is cumulative cultural evolution?

Alex Mesoudi and Alex Thornton

Human Behaviour and Cultural Evolution Group, College of Life and Environmental Sciences, University of Exeter, Exeter, UK

PROCEEDINGS B

rspb.royalsocietypublishing.org

Cumulative culture in the laboratory: methodological and theoretical challenges

Helena Miton¹ and Mathieu Charbonneau^{1,2}

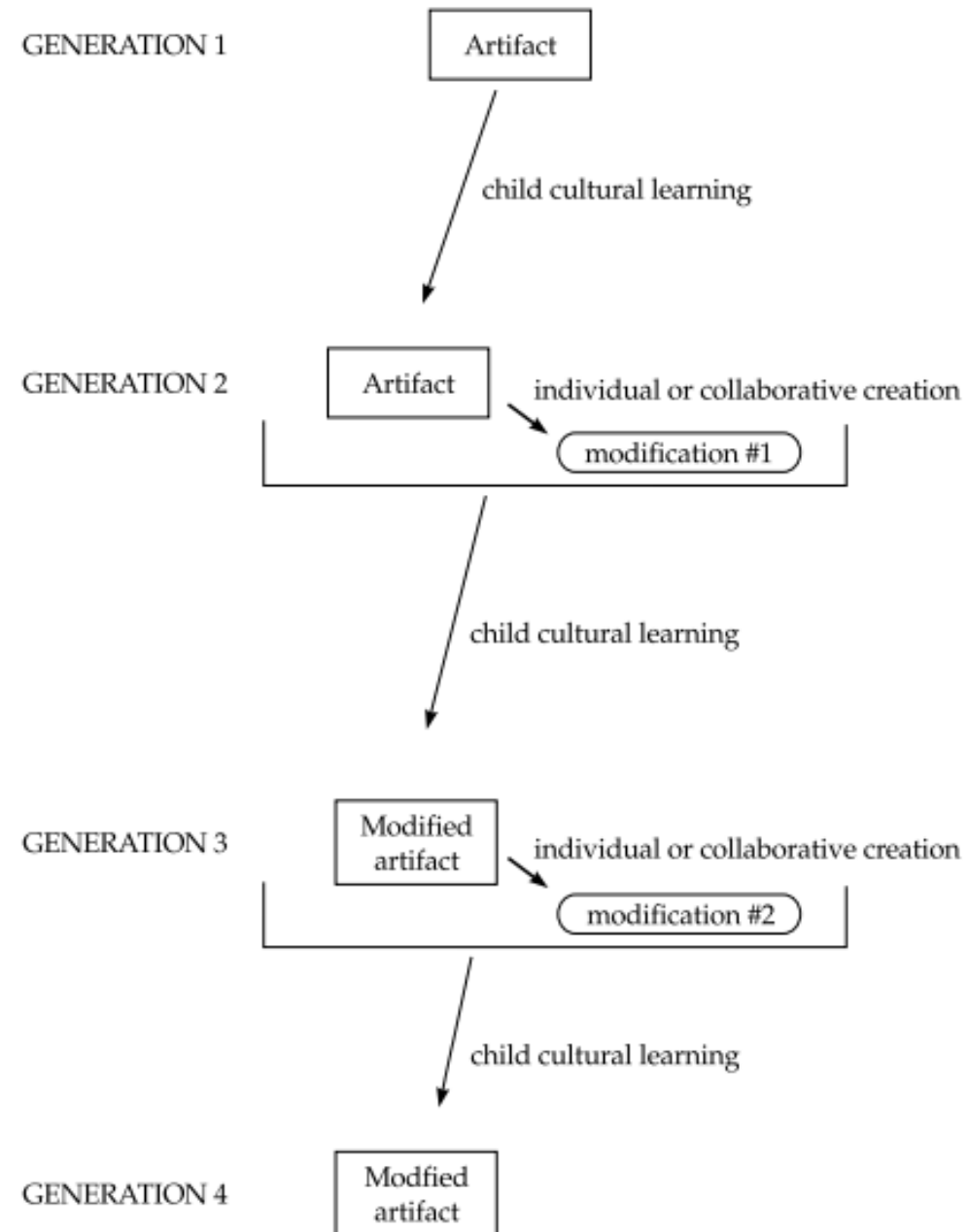
Two important components of cumulative culture

I. Ratchet effect

The basic idea [of the “ratchet effect”] is that the cultural traditions and artifacts of human beings accumulate modifications over time...

what happened was that some individual or group of individuals first invented a primitive version of the artifact or practice, and then some later user or users made a modification, an improvement, that others then adopted perhaps without change for many generations, at which point some other individual or group of individuals made another modification, which was then learned and used by others, and so on over historical time.

(Tomasello 2006: 205)



(Tomasello 1999)

Two important components of cumulative culture

2. Recombining innovations

The mechanics of technological recombination ... differs from that of living beings: in biology, the genome contains information that can be characterized as a set of linear combinations between the male and female chromosomes; innovations consist of changing weights. In all knowledge systems, including technological knowledge, no such constraints exist: information can be taken from a large number of sources and *added onto* existing forms.

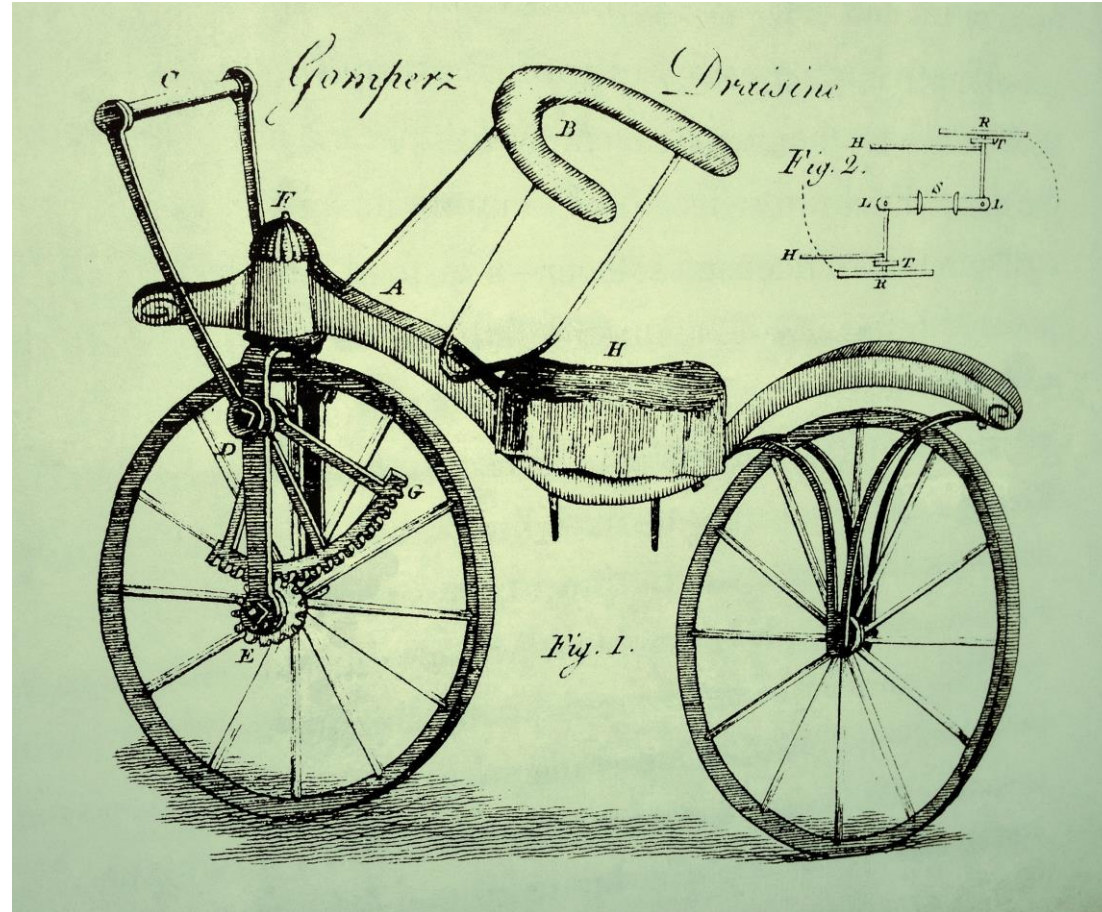
(Mokyr 1996: 71)

1818: Baron von Drais' "running machine"
Innovation: the very idea of a human-powered 2-wheeled vehicle



1821: Lewis Gompertz's bicycle

Innovation: indirect transmission



1869: Pierre Michaud's bicycle

Innovations: iron frame, pedals



1869: Andre Guilmet's bicycle

Innovation: indirect transmission with chain



1885: Starely's bicycle

Innovation: rubber tires

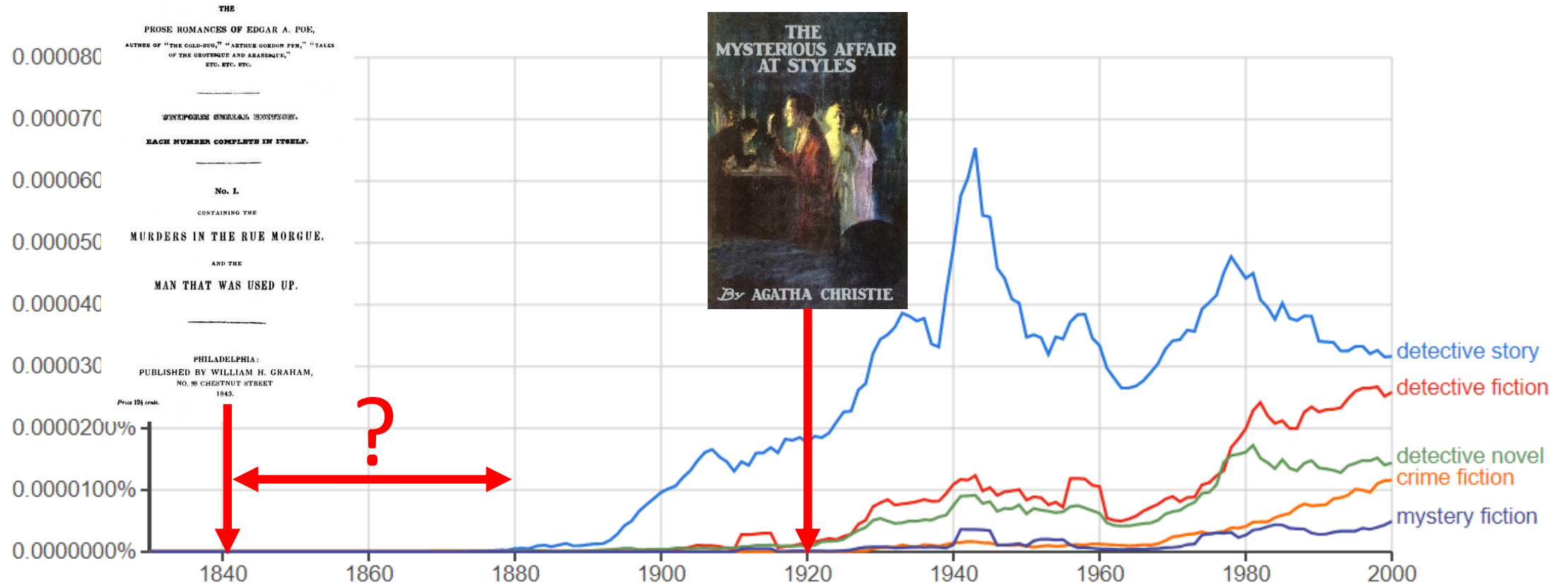


1887: Dunlop's model

Innovation: pneumatic tires



The invention of a genre



“Poe was the inventor of the detective story”

Borges, 1936

1794: William Godwin, Caleb Williams

Innovation: story told from effect to cause

THINGS AS THEY ARE;

OR, THE

ADVENTURES

OF

CALEB WILLIAMS.

BY WILLIAM GODWIN.

IN THREE VOLUMES.

VOL. I.

*Amidst the woods the leopard knows his kind;
The tiger preys not on the tiger brood;
Man only is the common foe of man.*

First edition of the novel

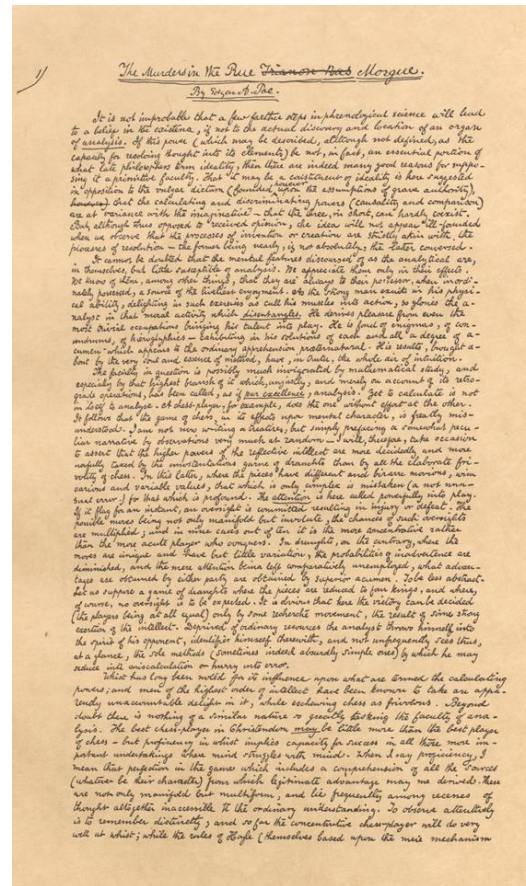
LONDON:

PRINTED FOR B. CROSBY, STATIONERS-COURT,
LUDGATE-STREET.

1794.

1841: Edgar Poe, “The Murders in the Rue Morgue”

Innovations: locked-room mystery, detective as the “reasoning machine”, simple-minded detective’s companion



Original manuscript

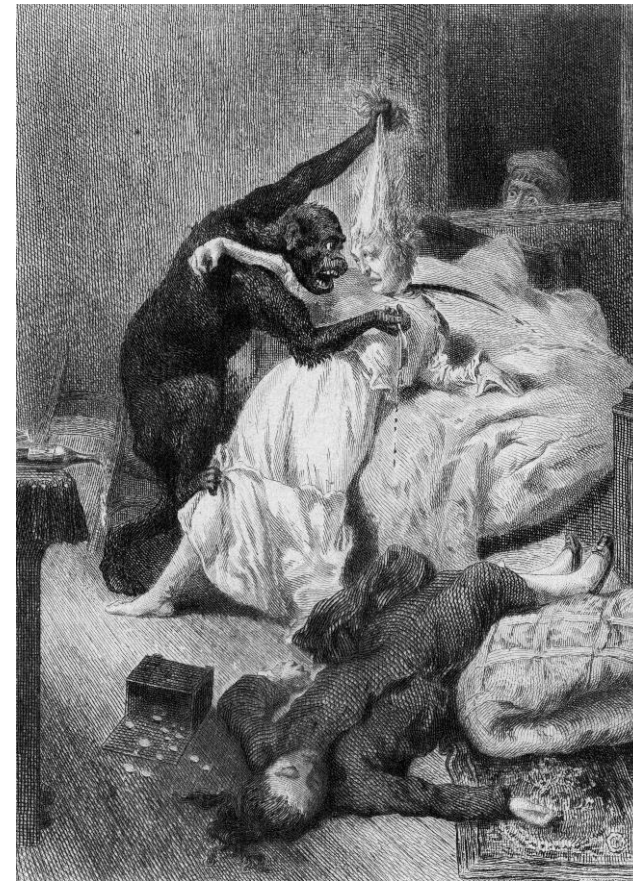
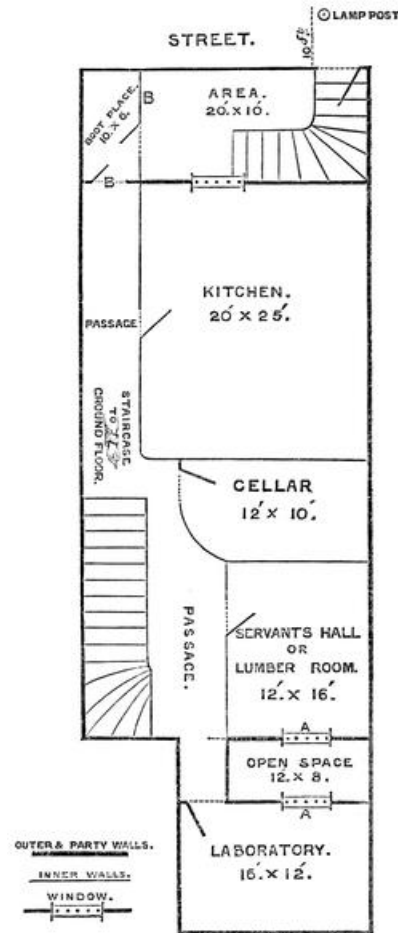


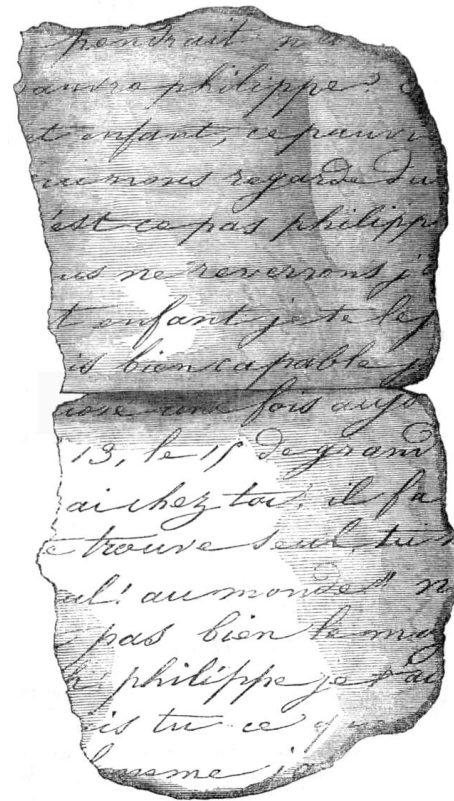
Illustration by
Daniel Vierge, 1870

1862–1863: Charles Felix, *The Notting Hill Mystery*

Innovations: first detective novel in English; a floor plan;
depiction of a clue



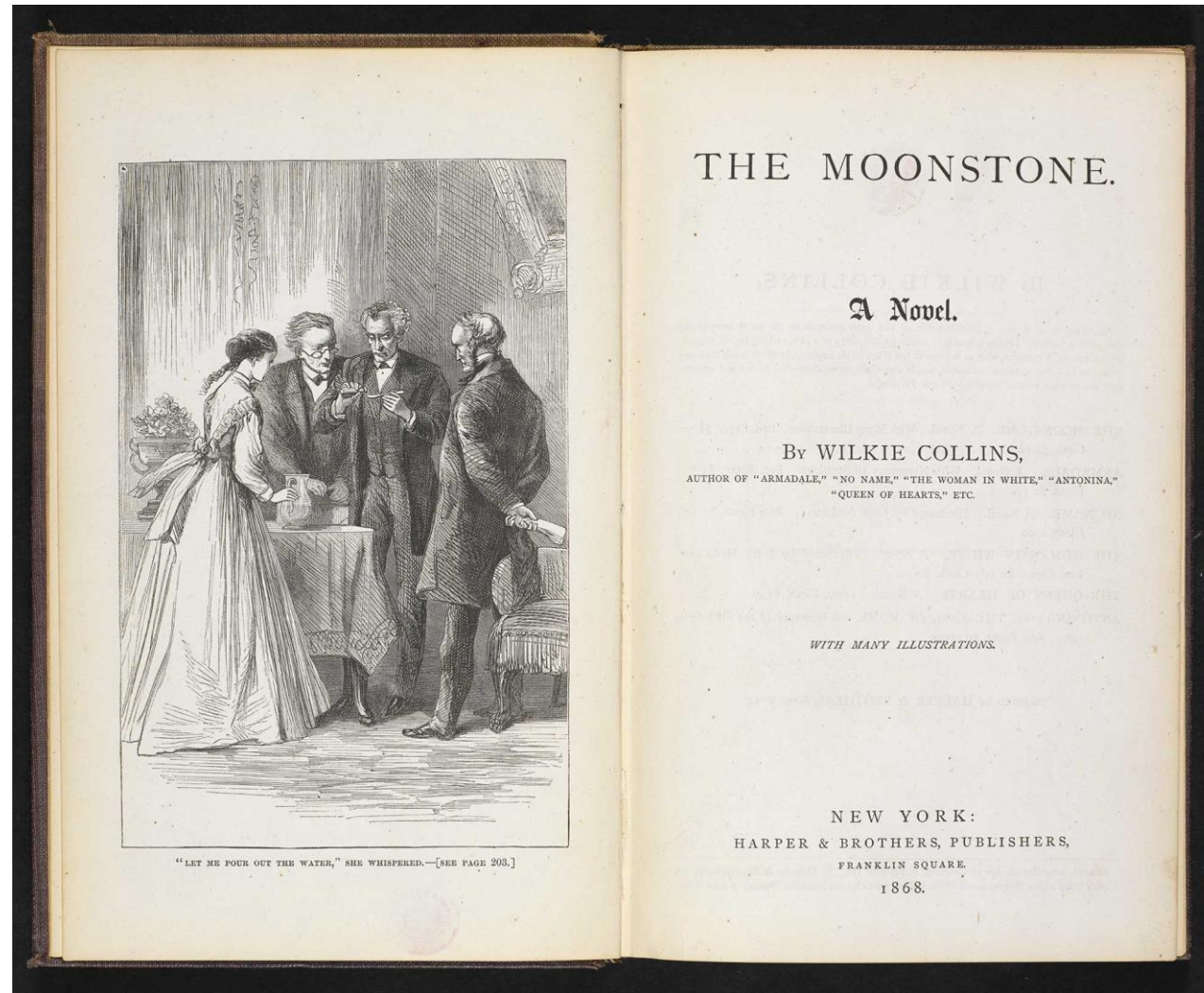
A floor plan



A clue: a piece of a letter

1868: Wilkie Collins, *The Moonstone* *Innovations: a closed circle of suspects*

First edition of the novel



1891–1892: Conan Doyle, a series of short stories about Sherlock Holmes

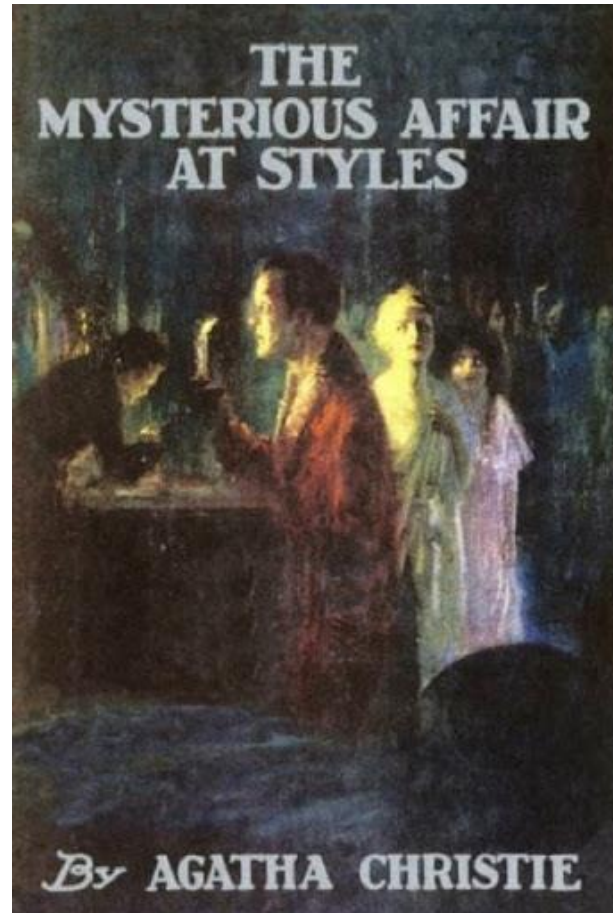
Innovation: “decodable” clues

“The Adventure of Silver Blaze”,
1892, illustration by Sidney Paget

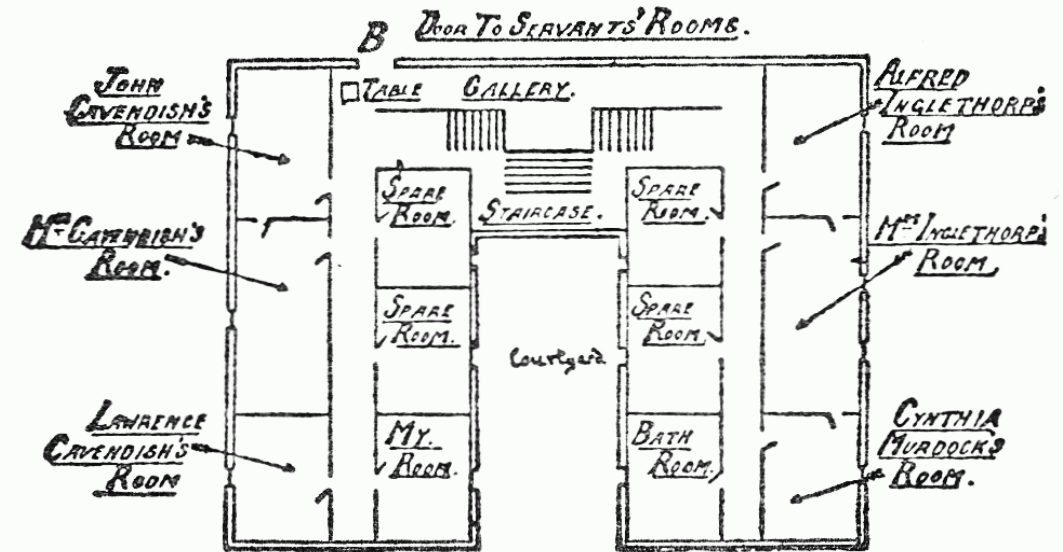


1920: Agatha Christie, *The Mysterious Affair at Styles*

Innovations: the first successful combination of virtually all the elements mentioned above. Besides, the first novel that made detection the sole purpose of the story

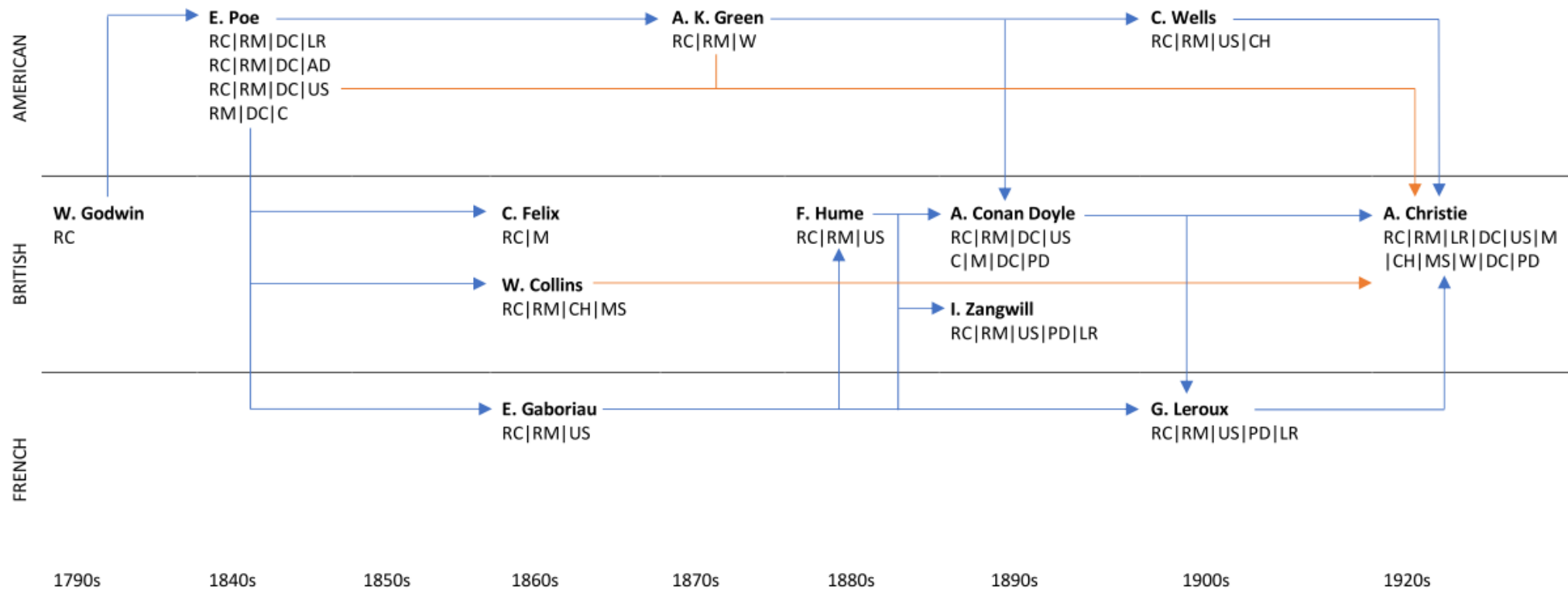


Cover of the first edition



Floor plan from the novel

The cumulative evolution of a genre



Chronology of inventions in the detective genre – in Britain, France, and the U.S.A.

RC – reverse chronology; RM – detective depicted as “reasoning machine”; LR – locked room mystery; AD – armchair detection; DC – story told by detective’s companion; US – unlikely solution as correct one; C – cryptography; M – map of crime scene; CH – country house crime; MS – evidence exists against multiple suspects; W – victim was about to change the will; DC – (potentially) decodable clues; PD – pure detection: detection is the only main purpose of story.

Deductions

- Crime is widely popular genre
- Partly explained by it's complexity and 'puzzle-like' nature
- Cumulative cultural evolution can increase the complexity of culture
- Complexity 'ratchets up' in narratives and technology



on Gillette
OCK HOLM

