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 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?

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

Juola, 2013, p.672

---

**Using the Google N-Gram corpus to measure cultural complexity**

Patrick Juola
Duquesne University, USA
Cumulative cultural evolution

The ideas of what it is and how to explain it... vary
Two important components of cumulative culture

1. 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)
GENERATION 1

Artifact

child cultural learning

GENERATION 2

Artifact

individual or collaborative creation

modification #1

child cultural learning

GENERATION 3

Modified artifact

individual or collaborative creation

modification #2

child cultural learning

GENERATION 4

Modified artifact

(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

First edition of the novel
1841: Edgar Poe, “The Murders in the Rue Morgue”

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