

# Narrative, Cognition & Science Lab

écrit par Clémence Mesnier

Call for Papers

## **Symposium:**

Narrative, Cognition & Science Lab

Friedrich-Alexander Universität Erlangen-Nürnberg

21-23 October 2016

Organized by ELINAS: Research Center for Literature and Natural Science

<http://elinas.fau.de/>

## **Invited Keynote Speakers:**

Marie-Laure Ryan : Independent Scholar in Residence, University of Colorado

H. Porter Abbott : Research Professor Emeritus of English, University of California, Santa Barbara

Bruce Clarke : Paul Whitfield Horn Professor of Literature and Science, Texas Tech University

Mark Turner : Institute Professor and Professor of Cognitive Science, Case Western Reserve University

Hans Ulrich Fuchs : Professor of Physics, Zurich University of Applied Sciences at Winterthur

Founding Director, Center for Narrative in Science

## **Description:**

What would a narratology of science look like? A narratology of science-in-literature?

How might principles of cognition bring narrative and science together?

Narrative is a fundamental, probably natural, mode of thought and meaning-making.

Science is now a central, more culturally-organized mode of knowing the world, of imagining, exploring, modeling, and acting on it. Narrative and science are not self-evidently related—indeed they may seem opposed. Yet many connecting threads can be discovered.

Scientists are adept and versatile narrators, telling many kinds of stories in many different genres and media. They recount unfoldings of events, at sometimes uncanny scales—from a particle collision at near light-speed, to the evolution of life, to the history of the universe—in order to interpret them. They narrate as individuals or in teams of thousands. Their events may be natural or manufactured, observed or inferred, objective or subjective or both. Scientists also tell human stories of developing hypotheses, arguments, theories and experiments, and they speak to many publics. Scientific stories may operate at the most concrete or the most abstract levels imaginable. Even mathematical proofs and physics equations have narrative qualities, some suggest. Narrativity appears at various stages of scientific processes: informal speculation, thought experiments, experimental design and execution, measurement, argumentation, writing and revision, theorizing, paradigm-shifting, popularizing, caricaturing (boosting and bashing), retrospective histories and philosophies of fields, and more. Scientists may adapt elements of literary narration (intentionally or not); in grand narratives or close case studies, understandings of nature become emplotted, shaped.

Complementarily, non-scientists often tell stories of science. In proto-scientific eras, knowledge-formation is arguably allied with myth, religion and magic: physics is entangled with metaphysics, chemistry with alchemy. And myth persists in modern discourses of science: myths of selfless or self-serving geniuses, of the promises and perils of technology. Journalists report and (attempt to) interpret scientific findings. Politicians and legal professionals grapple with scientific advice to decide social policies. Teachers tell science's stories to students—starting with simple versions, as ladders to be kicked away once the rung of the next-best version is grasped. Other versions circulate on social media (for better or worse), mutating as they move. Literary narrators draw ideas and forms from scientific writing, as topics, themes, images and structures. Narrative art reimagines physical forces, forms of causality and time, natural orders, whole cosmologies—inflecting partial scientific understanding with intuitions of pattern and meaning.

Much excellent scholarship analyzes exchanges between science and narrative. In addition, cognitive scientists have explored narrative's centrality to mental processes and products, and literary scholars drawing on cognitive science have produced far-reaching reinterpretations of basic concepts of narrative. Yet there remains a need for deeper understanding of the processes by which science can move into narrative, and (especially) vice-versa—deeper in the sense of more detailed, more precise, more systematic, more extensively informed by theory and practice, both narrative and scientific. The “narrative turn” has transformed the human and social sciences, but we have yet to take the full measure of narrative in the context of the physical sciences. The “cognitive turn” suggests that cognition may be a key to the deeper understanding we seek.

In this light, we propose a dialogue involving a direct and close focus on the intersections of narrative, cognition and science. This focus defines a very wide field of exploration, given the complexities of these terms, and we hope to inspire a rich discussion of new dimensions of these intersections.

### **We encourage consideration of questions on a range of topics bridging our foci:**

- How do scientific thought, practice and communication use narrative qualities?  
How does narrative cognition enable and reflect scientific cognition?  
How do scientists see their work as involving story?  
What forms of cognition overlap but contrast with narrative forms, and how?  
e.g. abstraction, ambiguity-reduction, visualization, mathematics, description, argument.
- What are the implications of the first questions for epistemology, ontology, communication?  
Does anyone still think science is “just another narrative”? What alternatives to the relativist/absolutist polarity have developed in the wake of the “science wars”? What does the future hold?
- Are there identifiable structures or qualities specific to scientific narratives?  
What kinds of narrators, characters, plots, causalities, chronologies, discourse structures, rhetorics, emotions, themes and ideologies do we find?

What parts of narrative theory resonate with science communities?

-What are the functions of scientific narratives?

How is narrative used to describe, predict, explain, enlighten, persuade, entertain?

-How are scientific thought and communication adapted into extra-scientific narrative?

How can they affect narrative form and processing?

-How might a consideration of scientific narrative change narrative theory, and cognitive theory? From recognizing previously neglected forms of narrative and thought to revising major concepts.

-All forms of narrative, cognitive, and scientific processes, artifacts and theories are welcome.

### **Abstracts:**

Please send 400-word abstracts by 31 August 2016 to Mike Sinding (michael.sinding@fau.de). Please include a brief bio/bibliography, e-mail address and postal address. Papers should be 25 minutes long.

### **Key Dates:**

Abstracts due: 31 August 2016

Decisions + Program: 15 September 2016

Registration: 30 September 2016

Symposium: 21-23 October 2016

### **ELINAS Contacts:**

Dr. Mike Sinding

Research Fellow, ELINAS

Friedrich-Alexander-Universität

Erlangen-Nürnberg Michael.Sinding@fau.de

Dr. Aura Heydenreich

German and Comparative Literature

Research Fellow, ELINAS

Friedrich-Alexander-Universität

Erlangen-Nürnberg Aura.Heydenreich@fau.de

Prof. Dr. Klaus Mecke

Institute of Theoretical Physics

Friedrich-Alexander-Universität

Erlangen-Nürnberg Klaus.Mecke@fau.de