

# ATTR Fall Seminar 2018

## Cognitive Perspectives

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### Speakers, Abstracts, and Readings

Monday, October 22

**GABRIEL LEVY, NTNU (Norwegian University of Science and Technology):**  
**“Cognitive Science and the Humanities”**

**Abstract:**

My paper will address the role of the evolutionary sciences in the humanities. I argue that humanists must incorporate and integrate the content of evolutionary science into their scholarly work, not just the discourse surrounding it. There are many reasons for doing so, but one of the important ones is that evolutionary arguments are increasingly being used to make arguments in the public sphere, particularly with the growth of podcast voices such as Rogan, Peterson, and Harris. Humanists can't be pro-science when it suits their politics — such as is often the case with environmentalism and climate change debates — but anti-science when there is more friction with their politics — such as is often the case when evolutionary arguments are brought up. Broadly speaking, there is no reason to think that biology — the science dedicated to understanding life, its origins and development, individually and in species — should be distinct from disciplines in the human sciences. Until recently, most of the integration has come by way of evolutionary psychology.

On the one hand, this has been a powerful lens to tell stories about the origin and persistence of important human phenomena, such as literature, religion, and art. Evolutionary psychology has tended to break down such complex phenomena into building blocks (modules or domains), which are then examined from the perspective of human evolution. In other words, evolutionary psychology explains (or hopes to explain) domain specific aspects of human phenomena. On the other hand, if one wishes to understand complex wholes, other approaches such as evolutionary systems theory (developmental or dynamical) have been more focused on how systems evolve and behavioral economics on the decisions of real holistic agents in life situations.

Bringing these two poles together is one of the present challenges. I think doing so will help reconcile some of the issues presently keeping biology and humanities approaches to human phenomena apart. There will never be a complete reconciliation, I think, because the scientific motives and goals — not to mention the methods and materials, scope, time-scales, and engagement With conceptual normativity — of most humanists (whether historians, literary theorists, or theologians) and biologists are usually different. In this paper, I provide some ground for bringing these two (at least two) cultures closer together using examples from the controversial science around human intelligence.

**Required reading: One of the following**

Carroll, Joseph. 2016. Introduction to *Darwin's Bridge: Uniting the Sciences and Humanities*. Oxford University Press

- Levinson, Stephen. 2006. Introduction: The Evolution of Culture in a Microcosm. In Levinson, Stephen C. and Pierre Jaisson (eds). 2006. *Evolution and Culture: A Fyssen Foundation Symposium*. Cambridge, MIT Press.
- Levy, Gabriel. 2018. "Let There Be Light: The Word of God in the Jewish Tradition, Past, Present, and Future." *AJS Perspectives: The Magazine of the Association for Jewish Studies*, Spring. p. 14-15.

**Suggested reading:**

- Carroll, Joseph. 2015. Evolutionary Literary Study. In *The Handbook of Evolutionary Psychology*, Volume 2. Wiley.
- Carroll, J, Johnson, J, Salmon, C, Kjeldgaard-Christiansen, J, Clasen, M & Jonsson, E. 2017. "A Cross-Disciplinary Survey of Beliefs about Human Nature, Culture, and Science." *Evolutionary Studies in Imaginative Culture*, 1, 1: 1-32.
- Claidière, Nicolas, Thomas C. Scott-Phillips, and Daniel Sperber. 2014. "How Darwinian is cultural evolution?" *Philosophical Transactions of the Royal Society B* 369(1642): 20130368.
- Sperber, D., 2006. Conceptual tools for a naturalistic approach to cultural evolution. In: Levinson, Stephen C. and Pierre Jaisson (eds). *Evolution and Culture: A Fyssen Foundation Symposium*. Cambridge, MIT Press: 147-165.
- Zunshine, Lisa. 2010. Introduction: What Is Cognitive Cultural Studies? In *Introduction to Cognitive Cultural Studies*. Johns Hopkins University Press.

**Tuesday, October 23**

**MARK TURNER, Case Western Reserve University: "Cognitive Textual Interpretation"**

**Abstract:**

The traditions of textual and bibliographical criticism (Greg, Bowers, Tanselle, etc.) emphasize trying to understand the minds of the participants involved in the text—its producers and receivers. What were the details of the language they knew and used? What recent history did they know? What cultural stories were in the air? To be sure, since there is often great linguistic and cultural distance between modern interpreters and historical participants, uncovering these differences can require painstaking scholarly effort. But there is a second question to ask about the minds of the participants, one at least as important: what part of the mental work done by those participants comes from the basic nature of the cognitively modern human mind—that is, the minds of all human beings, everywhere, over perhaps the last 50,000 years or more, a mere blink of the eye in evolutionary time?

People are typically confident that they know the main ways in which their own minds work, so it is unsurprising that they focus on the differences between their minds, concepts, and language and the minds, concepts, and language of the historical participants. But the persistent news from cognitive science over fifty years is that this confidence is profoundly unwarranted. How the mind works is typically invisible to everyone, certainly the person with that mind. For language, decision-making, categorization, vision, social cognition, innovation, memory, inference, reasoning, forming concepts of oneself and of others, and so on, the discoveries of cognitive science make it clear that the underlying human mental operations are far different from what anyone would have thought.

This talk will review highlights of basic human mental operations involved in cognition, including production and reception of texts, and especially textual interpretation. Cognitive

textual interpretation itself depends upon a cognitive shift: the human mind is not only not built to look into itself; it is built to not look into itself. The human mind cannot see in consciousness what it is doing to see or to read, to talk or to listen, to write or to interpret. Color perception does not work at all the way people imagine, for example; it is immensely complicated and takes fabulous work; 50% of neocortex is implicated in vision, and yet it seems to people as if they just open their eyes and see!

The only time we become aware of any of the complexity of the process is when something goes wrong—food poisoning, stroke, inebriation. Then, suddenly, we do not see properly, and must imagine that something has gone wrong inside a system to which we have no conscious access. So it is for everything else, certainly for language, text, and art. The cognitive scientist is perverse, perhaps cunning, in attempting to use mental abilities not selected for this task to try to drag onstage just a little of the mental operations that are otherwise invisible.

What human beings focus on in consciousness includes objects and events. So we assume from the start that the object of our study is this specific text, that specific painting, this boat, that church, these runes, that dancing. But of course, all of these are just physical forms. Physical forms do not mean or carry meaning. Thinking that they do is a cause-effect compression: the forms prompt the human interpreter to construct meaning; compressing a cause (form) with an effect (meaning) is a nifty pattern in human understanding ("loud man," "warm coat"), but the researcher needs to decompress this cause-effect compression and not be taken in by it.

The meaning is constructed by the interpreters, not the forms, just as the visual field is constructed by the viewers. The study of the physical forms is a discipline in its own right, and one that the historical interpreter must master—the materials, their invention, the means of production, what they can tell us about timelines, and so on. But these are not the objects of study in cognitive textual interpretation.

We do not know what someone will write tomorrow, but we can study now what mental operations, concepts, and ideas make it possible for people to write and interpret such things. It is not tomorrow's text that is the object of study in cognitive textual interpretation; the object of study is instead the nature of mind that makes that text and its interpretation possible. Analogously, there might well be, indeed probably are, texts from historical periods that we have not discovered. When such a text is discovered, the historical critic will instantly be able to do a lot of interpretation. What is it in the mind of the historical critic that makes that possible? What do we know about the minds of the text's producers and receivers that would have made the text possible?

The object of study in cognitive textual interpretation is not the form, or not fundamentally the form, but the mental construction of meaning that has that form as an effect, and the mental construction of meaning that is prompted for by that form.

**Required reading:**

Turner, Mark. "Compression and Representation." *Language and Literature* 15:1 (2006): 17–27.

**Suggested reading:**

Turner, Mark. *The Origin of Ideas: Blending, Creativity, and the Human Spark*. Oxford: Oxford University Press, 2014. (Chapters 5, 6, 7, and 8)

**STEFKA GEORGIEVA ERIKSEN, NIKU (Norwegian Institute for Cultural Heritage Research): “Cognitive Approaches to Textual Interpretation in Old Norse Studies”**

**Abstract:**

In the first part of this lecture, I will present a few studies of Old Norse literature and texts that have been inspired by various aspects of cognitive theory. These include discussions of the cognitive premises for creation of scaldic poetry, Old Norse mythology, and prose sagas, where concepts like ‘blending’ and ‘distributed cognition/authorship’ are central. In the second part of the lecture, I will present how the combination of cognitive theory, i.e. concepts such as distributed, embedded and embodied cognition, with theoretical approaches foregrounding the artefactuality and materiality of medieval culture, offers a new dynamic framework for discussing the cognitive and creative agency of intellectuals in medieval Scandinavia.

**Required reading:**

Eriksen, Stefka G. “Introduction: Intellectual Culture and Medieval Scandinavia.” Pages 1–34 in *Intellectual Culture in Medieval Scandinavia, c. 1100–1350*. Edited by Stefka Georgieva Eriksen. Disputatio 28. Turnhout: Brepols, 2016.

**Suggested reading:**

Clark, Andy. “Embodied, Embedded, and Extended Cognition.” Pages 275–91 in *The Cambridge Handbook of Cognitive Science*. Edited by Keith Frankish and William M. Ramsey. Cambridge: Cambridge University Press, 2012.

Eriksen, Stefka G. “Body and Soul in Old Norse Culture.” Pages 393–428 in *Intellectual Culture in Medieval Scandinavia, c. 1100–1350*. Edited by Stefka Georgieva Eriksen. Disputatio 28. Turnhout: Brepols, 2016.

Giere, Ronald N., and Barton Moffatt. “Distributed Cognition: Where the Cognitive and the Social Merge.” *Social Studies of Science* 33:2 (2003): 301–10.

Ranković, Slavica, and Miloš Ranković. “The Talent of the Distributed Author.” Pages 52–75 in *Modes of Authorship in the Middle Ages*. Edited by Slavica Ranković. Papers in Mediaeval Studies 22. Toronto: The Pontifical Institute of Mediaeval Studies Press, 2012.

**BALDER ONARHEIM, Technical University of Denmark: “Cognitive Theories of Creative Practice: From Neurobiology to Metacognition”**

**Abstract:**

Balder Onarheim will focus on cognitive theories of creative practice, and how knowledge of these theories can be used to optimize and improve the creative process. The workshop will consist of two parts:

1. Cognitive theories of creative practice: from neurobiology to metacognition
2. Creative cognition in practice: how to apply a cognitive understanding to academic work.

**Required reading:**

Onarheim, Balder, and Morten Friis-Olivarius. “Applying the Neuroscience of Creativity to Creativity Training.” *Frontiers in Human Neuroscience* 16 (2013). (<https://www.frontiersin.org/articles/10.3389/fnhum.2013.00656/full>)

**Suggested reading:**

Onarheim, B., S. U. Holm, and M. Friis-Olivarius. "The scientific foundation for the PlatoWork neurostimulation headset." Internal publication, PlatoScience Neurostimulation Aps, Copenhagen Denmark (PlatoWork 'white paper' v2-2), 2018.

Onarheim, B. "Creativity from constraints in engineering design: lessons learned at Coloplast." *Journal of Engineering Design* 23:4 (2012): 323–36.

Onarheim, B., and M. M. Biskjaer. "Balancing Constraints and the Sweet Spot as Coming Topics for Creativity Research." *Creativity in Design: Understanding, Capturing, Supporting* 1 (2014): 1–18.

**Thursday, October 25****HUGO LUNDHAUG, University of Oslo: "Memory, Literary Practices, and Social Control in Early Egyptian Monasteries: A Cognitive Perspective"****Abstract:**

This lecture will demonstrate how we may use insights from the Cognitive sciences to shed light on literary practices and social control in the early monastic communities in Egypt. Using examples from the Pachomian community and the monasteries led by Shenoute of Atripe, I will specifically focus on ways in which cognitive perspectives on memory and literature may help us understand early monastic practices of reading, memorizing, and interpreting authoritative texts, as well as the growing need among monastic leaders to control such practices. Perspectives on individual and collective cognitive processes will be discussed and combined.

**Required reading:**

Lundhaug, Hugo. "Memory and Early Monastic Literary Practices: A Cognitive Perspective." *Journal of Cognitive Historiography* 1:1 (2014): 98–120.

**Suggested reading:**

Barnier, Amanda J., John Sutton, Celia B. Harris, and Robert A. Wilson. "A Conceptual and Empirical Framework for the Social Distribution of Cognition: The Case of Memory." *Cognitive Systems Research* 9 (2008): 33–51.

Clark, Andy, and David Chalmers. "The Extended Mind." *Analysis* 58:1 (1998): 7–19.

Tollefsen, Deborah P., Rick Dale, and Alexandra Paxton. "Alignment, Transactive Memory, and Collective Cognitive Systems." *Review of Philosophy and Psychology* 4 (2013): 49–64.

**ISTVÁN CZACHESZ, University of Tromsø: "Cultural Evolution and Biblical Studies"****Abstract:**

This lecture will survey recent developments in evolutionary theory, with special attention to developing evolutionary models of social and cultural processes, and their applications to biblical studies. Among others, we will address the challenges to the neo-Darwinian synthesis, David S. Wilson's concept of group selection, the inheritance systems proposed by Eva

Jablonka and Marion Lamb, Jonathan Turner's work on social evolution, and the theory of evolution as a learning process put forward by Richard Watson and Eörs Szathmáry.

In the second part of the lecture, we will look into the potential uses of evolutionary theory in the study of biblical literature, including the question of early Christian groups and their survival, the relationship between groups and texts, and the processes underlying the success of textual traditions in oral and written media. Finally, we will address the questions of meaning and interpretation from the perspective of evolutionary theory.

**Required reading:**

Czachesz, István. "Cultural Evolution and Biblical Studies." Pages 239–55 in *Tra pratiche e credenze. Traiettorie antropologiche e storiche. Un omaggio ad Adriana Destro*. Edited by Claudio Gianotto and Francesca Sbardella. Brescia: Morcellina, 2017.

**Suggested reading:**

Jablonka, Eva, and Marion J. Lamb. *Evolution in four dimensions: genetic, epigenetic, behavioral, and symbolic variation in the history of life*. Cambridge, Mass.: MIT Press, 2005.

Kundt, Radek. *Contemporary evolutionary theories of culture and the study of religion*. London: Bloomsbury Academic, 2015.

Mesoudi, Alex. *Cultural evolution: how Darwinian theory can explain human culture and synthesize the social sciences*. Chicago; London: University of Chicago Press, 2011.

## Friday, October 26

### **Line Cecilie Engh, University of Oslo: "Minding Medieval Monks: Metaphor, memory, and Imaginative Immersion in Cistercian Writing and Liturgy"**

**Abstract:**

Medieval devotion was endlessly layered and wildly imaginative. Nowhere is this more apparent than in Cistercian writing and liturgy. Bernard of Clairvaux and other Cistercian writers used an array of female and erotic metaphors, which were grounded in biblical texts like the Song of Songs, to represent the self's desire for transformative union with the divine. The evocative, sensual language of the Cistercians is particularly striking since they were adult converts with extramural experiences and memories which Bernard – that remarkable cognitive engineer – sought to transform into spiritual ones.

Drawing on perspectives from cognitive science as well as perspectives from theories of gender and performance, we will explore Cistercian liturgy and Bernard of Clairvaux's sermons to interrogate into how they aimed to recharge and restructure the monks' shadowy and ephemeral past experiences and transform them into meaningful and comprehensible monastic experiences. We know little of individual Cistercian monks' understandings of symbols and concepts, other than public expressions of symbolic meaning through text and ritual. Still less do we know their personal histories, their individual experiences, and their private thoughts. But we do know that the nameless and mute monks that made up the large part of Bernard's audience did share a common liturgy and a common reading.

The challenge for the modern scholar is how to approach, understand, and represent something as intensely imaginative and charged as Cistercian writing and liturgy. Perspectives and terms from cognitive science and philosophy of mind, especially conceptual blending theory, may help us recognize how mappings, compressions, elaborations and inferences that

arise from metaphor and figurative language (Fauconnier & Turner 2002) produced dense cultural meaning in the Cistercian monastery. Cognitive science may also provide us with a richer conceptual model to account for the cognitive processes that underpinned the Cistercian liturgy with its distinct emphasis on transformation. In his sermons Bernard of Clairvaux used first person imaginative immersion (Paul 2014) and blended viewpoints and deictic displacements (Sweetser 2015, Turner 2014) to imagine and project himself and his audience into sacred narrative and biblical figures. Through a creative process of re-imagining and remembering (Coleman 1992, Carruthers 1998) Bernard's sermons, I hold, staged a performance that transformed both him and his monks.

**Required reading:**

Fulton Brown, Rachel. *Mary and the Art of Prayer: The Hours of the Virgin in Medieval Christian Life and Thought*. New York: Columbia University Press, 2018. (Chapter 2, pages 47–58)

Turner, Mark. *The Origin of Ideas: Blending, Creativity, and the Human Spark*. Oxford: Oxford University Press, 2014. (Chapters 3 and 4, pages. 31–105 and Appendix, pages 262–63)

**Suggested reading:**

C Coleman, Janet. "Cistercian 'Blanched' Memory and St Bernard: The Associative, Textural memory and the Purified Past." Pp. 169-91 in *Ancient and Medieval Memories: Studies in the Reconstruction of the Past*. Cambridge: Cambridge University Press, 1992.

Paul, L. A. *Transformative Experience*. Chapter 2, pp. 5-51. Oxford, Oxford University Press, 2014.

Pranger, Burcht. "The *Persona* of the Preacher in Bernard of Clairvaux." *Medieval Sermon Studies* 51 (2007): 33-40.