

# On Myth, Science, and Narrative

with some thoughts on emotion, abstraction, time, agency, and forces

Hans U. Fuchs

ZHAW Winterthur, July 2015

## Abstract

A part of the argument tying conceptual structures in science to narrative understanding is related to the notion of a mythic, oral language based cultural phase during the development of the human species (Donald, Gebser) and early in childhood when individuals acquire a spoken language (Egan). In oral societies, story seems to be the proper vehicle for carrying and transporting understanding of the world as has been demonstrated in research on mythologies of peoples 'without writing' (Levi-Strauss). If we can show that the origins of the human mind are present in today's formal sciences, we can create a (further) link between science and narrative.

Myth is related to some deep structures of the human mind. Concepts and cognitive tools found in mythic culture suggest the existence of (1) emotional ties between self and the world and (2) abstract thought. Abstractions resulting from the interaction of organisms with their surroundings are used to give expression to conscious perception (feeling) of our emotional encounters with the world, part of which is constituted by encounters with our psyche such as in dreams. On this count, abstraction is a basic human capacity and not something created late in the history of the species or late in education. In this contribution, I will sketch some ideas relating to oral mythic cultures and the role of myth as narrative, and demonstrate forms of reasoning found in myth which are present in today's science.

## Introduction

Humans have evolved and individuals grow — this much is clear. Less clear is the role of previous phases of development for the current state of understanding available to cultures or individuals. In this presentation I will assume that earlier forms of understanding matter greatly — they form the foundations of later forms. Moreover, I will assume (with Egan, 1988, 1997) that when modern individuals grow they learn cognitive tools roughly in a sequence which has already played out in the history of the species. In this context, cognitive tools are strongly tied to types of language use acquired by a culture or by an individual: oral language, literacy, and formal languages and all that is tied to the particular type of language use.

Scholars who investigate and discuss human development often divide our cultural heritage into stages. Donald (1991) identifies, in this order, episodic, mimetic, mythic, and theoretic cultures; Gebser (1949) speaks of archaic, magical, mythic, and mental phases; for the purpose of his educational theory, Egan (1988, 1997) uses the idea of somatic, mythic, romantic, and philosophic phases. In the context of literature, another model of development is that of Northrop Frye who introduces stages called mythic, romantic, mimetic, and ironic (1957, 1963).

Interestingly, all of these accept the existence of a phase called *mythic* which is largely characterized by oral language use (except in Frye's case)—mythic culture is pre-literate (Ong, 1984). Egan assumes that small children between three or four and eight to ten years old recapitulate much of a mythic phase—they acquire the cognitive tools of spoken language (which will be lost again to some extent when literacy makes its demands upon the human mind).

Levi-Strauss (1978) approaches the question of myth from an anthropological perspective. His investigations and interpretations of mythical stories from all over the world give us an interesting insight into a phase in human development that could be important for us when we want to study the role of narrative in science proper (intrinsic use of narrative).

Cognitive tools related to a mythic culture are quite distinctive; they are different from those we know and use as members of a literate culture. Elements of mythic culture and understanding are basic emotional and cognitive abilities such as mental imagery and fantasy; ability to use and understand story and metaphor; awareness of psychological, social, and natural forces and their rendering in language; awareness of rhythm and patterns in language; concepts such as polarity and dynamics as the flow of substances.

## What is myth?

We can understand the meaning of myth (mythic culture) by analyzing the role of a developing consciousness in early human cultures. The immediate environment was known to early (non-linguistic) humans, they lived in it and knew how to survive in it—it was unsurprising to the awakening consciousness. What was new and surprising was the conscious realization of an “inner life,” that of the mind or “soul” (as revealed, for example, in dreams and trance). What we see in myth is a representation of what we experience there, i.e., it is a representation of our imagination. A very important element of growing consciousness was the realization of certain (personal) death (Nixon, 2010):

*[...] prehumans underwent an existential crisis, i.e., the realisation of certain mortality, that could be borne only by the discovery-creation of the larger realm of symbolic consciousness once experienced as the sacred [...] [B]eing in the human sense first awoke with the departure from the sensory focus within the natural environment and the entrance into an entirely new world of the symbolic mind. This transformation into openended syntax and active imagination was experienced as an awakening to the sacred — not merely to new survival tactics, technological possibilities, or social enhancement. Sacred awareness is of the felt dimension of invisible powers and presences and is here understood to include the apprehension of a far beyond in time and space (the latter including the vertical polarities of supernatural heights and subterranean depths). [...] A vast emotional yearning had arisen, a need for meaning that ritual and myth, if not fulfilled, at least assuaged. In short, in a teleological sense the need for myth made language, which is to say, myth made humanity.*

...