

Grist for the Mill: Bread-making as a Source of Analogy

The stereotype of the supremely rational ancient Greek, though still vigorous in the popular imagination, has rightly receded in scholarship. In the 1960s E.R. Dodds and G.E.R. Lloyd began to dismantle this view by exposing non-rational aspects of ancient Greek thought, particularly reliance upon the “microscope of the mind” (a phrase perhaps attributable to the philosopher William James) in Greek scientific thinking. More recently, Sedley (2007) and others have explored the place of the craft analogy in the making of the thought of Plato and Aristotle. This kind of analogical thinking, with its strong affinities to the epic simile, is an example of how the Greeks’ understanding of the natural world is shaped by common cultural processes, which include bread-making.

The process of bread-making was a familiar one in the ancient Mediterranean world (Jasney 1950; Wilkins *et al.* 1995), and as such, it was readily conceptualized and employed as a source for analogy, both in poetry and in scientific texts. By taking the example of how certain Greek authors make use of bread-making for explanatory analogical purposes, in this paper I expose some of the mental processes that underlie the Greeks’ use of analogy to explain the world.

When our textual sources mention wheat and bread-making (that is, when this cultural process is not left to the women, as in *Od.* 20.105-19), it is conceptualized in two ways: first, as the hallmark of civilized society, and second, as a complex example of the ways humans interact with and overcome their often hostile environment. The second conceptualization can be further subdivided into divine and worldly understandings.

First, grain is equated with civilization. The description of reaping on the shield of Achilles (*Il.* 18.550-60) demonstrates the importance of grain to the proper running of society:

social roles are emphasized by the contrast between the king and the reapers and binders. Furthermore, the Homeric adjective πολύπυρος, applied to Buprasium (*Il.* 11.755), Argos (*Il.* 15.372), and Dulichium (*Od.* 14.335, 19.292) among other locations, underlines the connection between rich production of wheat and civilization.

Second, bread-making is a multi-step process that allows people to survive and prosper. One view of bread-making's importance in this regard is that it is an example of "irreducible complexity," one that requires the heavenly fire given by Prometheus (*Hes. Th.* 565-7; *WD* 50-52; Plato, *Prot.* 321c-e). In this sense, bread-making is not understandable and relies on divine knowledge inaccessible to humans. In another view, common among popular theories of human cultural advancement, bread-making is seen as a key step in the formation of civilization (e.g., *Diod.* 1.8.5-8), wherein humans were led by necessity to overcome their harsh environment. This second conceptualization of bread-making lends itself to the creation of scientific analogies.

Taking this developed bread-making concept, I examine how it is then adapted to serve as a standard of comparison in analogies in Greek scientific texts. In the remainder of the paper, my focus is on the use of analogies to bread-making in the medico-theoretical texts in the Hippocratic Corpus. In *Vet. med.*, the process is laid out in a detailed fashion: winnowing, threshing, grinding, mixing, etc. This process is then used as a comparison to the development of the medical *technê* and its reliance on regimen-based treatments (3.4-5). Additionally, in *Nat. puer.*, the formation of a crust on baking bread is used to explain the process by which an embryo surrounds itself with a membrane (the amniotic sac). In these examples, the high level of conceptualization of the simple process is apparent, and a mundane activity is reflected in serious works of science. The cognitive process leading to more developed theories about the natural world is thus apparent. Cultural processes (*nomoi*) are used as a method to understand *phusis*.

Bibliography

- Dodds, E.R. 1968. *The Greeks and the Irrational*. Berkeley.
- Jasny, N. 1950. "The daily bread of the ancient Greeks and Romans." *Osiris* 9: 227-253.
- Lloyd, G.E.R. 1966. *Polarity and Analogy: Two Types of Argumentation in Early Greek Thought*. Cambridge.
- Sedley, D. 2007. *Creationism and its Critics in Antiquity*. *Sather Classical Lectures*, 66. Berkeley.
- Wilkins, J., D. Harvey, and M. Dobson., eds. 1995. *Food in Antiquity*. Exeter.