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HSCI 5590
August 18, 2012

Science's Surname

In 1992 Heinreich von Staden published the article *Affinities and Elisions: Helen and Hellenocentrism.* In it he spends less than twenty pages discussing the issues of building the history of science around the Greek model. Von Staden reveals that this is due to an "affinity" to the Greek model based on its similarities to the modern model of science. The issue of where science comes from is the topic for much research and Von Staden attempts to bring other possibilities to the debate.

The present breakdown of what is science and what is *non*-science is nearly mirrored in the ancient Greek texts, and that is where von Staden's argument begins. The modern model is only mirrored in the numerous Greek sources that have been translated. He accounts that many other lesser known tomes include many things that are presently referred to as folklore, myth or pseudoscience. Many modern scholars would conclude that the Greeks would have classified them the same and that is where the problem in hellenocentric thinking lies. *Affinities* argues that the Greeks were as unscientific at times as the Maya, the Indians, and "primitive" native cultures, but he concludes that many of these other cultures if viewed with the same "affinity and elision" that the Greeks have been privy to, would reveal as vast a "modern" scientific model as anything that existed in the Mediterranean.

The two longstanding arguments on what facilitates the growth of science are literacy and democracy. In the case of the Greeks it is argues that the two are intertwined—the democratization of literacy. Von Staden points out that many scholars believe once the ability to read and write were out of the hands of the elite and secret society, the population began to think

for itself, including thinking scientifically. His counterevidence is very strong. Staying within the Greek states Von Staden produces numerous examples of scientific thinking flourishing under kings and even tyrants. At the same time he also reveals the incidents of death to forward thinkers in decidedly "democratic" areas.

Von Staden's use of archaeological evidence to support his arguments includes the production of the Assyrian and Babylonian charts and alphabets. He counters the arguments that science for a goal or for a purpose can serve the "sciences," such as predicting the sex of an unborn child, or divination based on the position of heavenly bodies, the latter of which led to the Babylonian's creating very detailed and highly mathematic charts of the heavens. He also uses physical examples to discuss how the interaction between the Greeks and the non-Greeks was incredibly complex and more important than either the Ancient Greeks admitted or that many historians of science admit today.

Von Staden's work is an overview of how the history of science must change its focus from a model centered on Greece to a more holistic worldview of its beginnings. This work is passive-aggressive at times as he states how one model is okay but should be revised and again how the organization of a particular thought pattern is wrong, but that is not to say entirely wrong. As a quick note to other professionals in the field, the article should strike a chord, or at very least open up a discourse. For many researchers just beginning their studies it should serve as a warning to look more holistically at the beginnings of scientific thought, as well as what constitutes scientific thought.

The article would benefit from a future rewrite into two separate arguments. One on the importance of literacy and another on the importance, or in Von Staden's view the *un*importance of democracy. The work read like it was the beginnings of both of these arguments separately

but then combined. He ends abruptly describing the early Greek habits that led to the tradition they believed superior to any contemporaries and what we follow today. This would have been a perfect opportunity to compare that Greek thinking to 19th century England and their hold on the scientific community, as well as modern American thinking regarding prescription drug research vs. native homeopathic plant medicines practices by indigenous tribes in the rainforests of the world.

At present "*Affinities"* reverberates as a call for more credit to various other ancient cultures for their participation in shaping world science. That bibliographic lack only adds to the "centrism" of choice when it comes to the position of the scholar who is postulating a new, or modifying an existing, theory. Until the argument is given that what the Ancient Greek centrism in real time should serve as a warning for modern cultural science centrism, most individuals are going to maintain their current paradigm. The article has many strong points, but does not really argue on how to use those points to steer the discipline in a new direction. It would be interesting to study what, if any, impact this paper had on the history of science community when it was released and if the tides of thought have indeed turned to a larger more global view.

Von Staden's point can be drawn up and concluded with a very simple analogy. When studying genealogy of humans each successive generation doubles the number of direct ancestors. Not including brothers, sisters, aunts, or uncles, the number rises very quickly until suddenly in only five generations you have thirty-two individuals directly involved in your existence. In another five generation that number has risen to 1024. Generally, everyone has only one surname, and that is what they see as their identifier, what makes them, them. Most people ignore 1023 of those ancestors and generally only see themselves as whatever the grandfather's grandfather was. Perhaps he, out of the 1024 individuals was the only Scotsman, so why is that

the defining strain? The same reason Helen and Hellenocentrism remains the dominant choice for the beginning of scientific thought; what Heinrich Von Staden called “Affinities” and “Elisions.”

When viewed this way, it is apparent how many sources are forgotten or simply unknown. The same is true for the discussion on modern science’s ancestry. All Von Staden does in this article is present the 1000 other ancestors science has with usually no more than a name, an ethnicity, or geographic location. Further research into each of these ancient cultures and the combined work of the scholars in those fields are the only things that will bring enough information forward to a more accurate model of the birth of scientific thought. Until then Von Staden’s argument just points to all the others and says the information is out there and it needs to be studied.