In “Epistemic Styles in German and American Embryology” Jane Maienschein’s essay joins a conversation about what constitutes “good science.” Maienschein discusses different scientific ways of knowing and the ways in which “doing science” can mean different things at the same point in history. She presents a case study to answer the question “At any given moment, is there only one right way to do science?”

Discussing American and German embryologists in the 1880s, Maienschein first identifies the categories of “doing science”: school, style and technique. There are no firm divisions between them, but the point of this categorization is to elucidate commonalities in the ways that scientists in each country were doing research.

Overall, the Germans worked to develop a holistic understanding of all natural phenomenon rather than overly fixate on the details of one. When they encountered data that was outside of their experiment, or otherwise an unexpected result, they worked to integrate that result into their understanding of the object of study. Rather than gloss over differences and infighting within the German embryologist community, Maienschein highlights the difference - like that between Weissman and Hertwig - as “difference in degree rather than… in kind” of epistemological details (p. 418)

The Americans sought deep understanding of each subject of study, and worked to understand it fully, rather than immediately integrate it into other scientific theories. Americans scientist believed that findings needed to be “observable, repeatable, verifiable” (p. 422). Thus, when experiments revealed unexpected data, the Americans did not rush to integrate that data into their theory, but to revisit their experiment.

While it took a long time (and, I would argue, unnecessary scientific details) to get there, Maienschein’s ultimate conclusion is powerful and captivating. She draws a three-part conclusion that is important. First -“If there are different styles of work [which are both accepted as valid]” (p. 425) then science is not just one body of knowledge or set of techniques. This means that there is not any one *right* way to do science at any moment. And this, in turn, means that “[a]ny philosophical view that assumes one unique rational approach to science must therefore be misguided.” (p.425). Maienschein roots this claim in a historical context and supports it with thorough examples.

Maienschein, J. (1991). Epistemic Styles in German and American Embryology. *Science in Context*, *4*(2).