

# Abstract

Richard Dedekind has had an incredible influence on modern mathematics, largely due to his methodological demands which are still valued by mathematicians today. Through an investigation of some of his works written between 1854 and 1877, I reveal a connection between these methodological demands and features of axiomatic reasoning that he employed. I discuss two foundational/philosophic works (his *Habilitationsrede* and *Stetigkeit und irrationale Zahlen*), and his first two versions of the theory of ideals. Dedekind himself assists in the endeavor as he often expresses his reasoning for choosing one method over another. This self-reflective feature of Dedekind's efforts provides a unique opportunity to use his comments as a guide to reading both the foundational and mathematical works. Furthermore, his methodological preferences can often inform an interpretation of the chronological development of his work. Distinctive changes occurring between his first two versions of the theory of ideals are particularly relevant to such a discussion. I provide evidence demonstrating that Dedekind's methodological demands surrounding the issues of ontology, domain extension, and conceptualization are most fruitfully pursued using features of axiomatics.