Information in Genomes - Scientific, Theological, and Ontological Perspectives

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The presentation will summarize research done in cross-disciplinary integration. It will look at the nature of genomic information, and how these three perspectives could relate. Do we understand genomic information better by integrating these perspectives?

Scientific perspective - A definition of science is discussed along with the complexity found in the cell and genomes. Three genomic exemplars are explored: 1) overlapping bi-directional protein sequences, 2) DNA poly-functionality with overlapping codes, and 3) standard codon table optimality. A high-level scientific assessment is done for each. Are conclusions made solely from measurable data adequate to provide enough explanatory power for these exemplars?

Theological perspective - God's omnipotence and infinity are considered and what impact utilizing them *a priori* has. Acknowledging the influences of infinity and unlimited power may impact understanding genomic information understanding. Additionally, sin as possibly seen in epigenetic overriding of gene expression is discussed. If man can explore the world with only finite resolution and limited capacity, is it possible to detect and characterize signatures that extend beyond his abilities?

Ontological perspective – The impact of the physicalist and dualist ontologies are considered. An analogy is discussed that illustrates the different ontological frame of references. How could an ontological perspective limit or aide in determining explanatory scope?

With collaborative areas identified perspective integration is explored. Six worldview alternatives with different opinions on science, theology, and ontology integration are assessed via a sensitivity analysis to highlight their explanatory power and the utility of integration.