

William Kingdon Clifford

An unconventional mind

I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree or qualification. I certify that any help received in preparing this thesis and all sources used have been acknowledged in this thesis.

Signature



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Abstract

This thesis seeks to show that the recorded thought of William Kingdon Clifford in the third quarter of the 19th C was not only relevant to scientific advancement but removed absolute certainty from any posited model of reality. The period during which Clifford worked was a turning point in humanity's understanding of the world. The two most significant developments of his time that Clifford used in his speculative metaphysic were the possibility of non-Euclidean geometries being abstract as opposed to abstruse¹, and the evolutionary theory of Darwin. Clifford was foremost a geometer. However he had an insatiable desire to understand his world, which led to him becoming fluent in several languages, applying his geometrical skills to contemporary unsolved problems of physics, involving himself in speculative metaphysics. Clifford is recognised as being a highly gifted geometer. His thought was taken up by John Archibald Wheeler in the mid 20th C. Likewise Ernst Mach recognised the thought of Clifford. Although the thesis involves mathematics I make no claim to being a mathematician. It is Clifford's speculative metaphysic and how it relates to our understanding of consciousness and the nature of languages both formal and natural that is my particular interest. Because of this I explore the relationship between Clifford, Gottlob Frege and Ludwig Wittgenstein in most detail. However the understanding of the world must take into consideration the world in its entirety. As C.D. Broad put it:

There are different departments of fact, or different regions or levels within a single department, which it is very unusual for the plain man or even the professional scientist or scholar to contemplate together and to view in their mutual relationships. Yet they do co-exist and are relevant to each other and they must presumably be interrelated in some coherent way.

I will show that two generations prior to this thought of Broad's, Clifford was applying its implications to his work.

¹ I use abstruse as per Sharma. See 'The Role of Mathematics in Physics' C. S. Sharma, Brit. J. Phil. Sci. 33 (1982), 275-286. I take Sharma to be using 'abstruse' to distinguish a mathematical model that seeks to represent perceived reality from one which is consistent in and of itself with no claim to a relationship to the world.