# Scientific inquiry of bacon and descartes essay sample essay

During the Scientific Revolution of the 17th century. both Francis Bacon and Rene Descartes established and promoted their ain signifiers of scientific enquiry and natural doctrine. Francis Bacon promoted the usage of inductive research with the end of profiting world.

and Rene Descartes promoted the usage of mathematics in scientific apprehension. Both Bacon and Descartes challenged. and were radically different from. the traditional Aristotelean school of idea. and each believed that the old scientific procedures were useless in turn outing good theories. Both work forces used God to back up and warrant their systems of scientific enquiry.

Although Bacon and Descartes disagreed in their usage of mathematics. and inductive logical thinking vs. practical analogies. both contributed to bettering the scientific procedure. Francis Bacon’s scientific enquiry was based on initiation.

which was really different from the traditional Aristotelian enquiry based on tax write-off. Aristotelean philosophers formed decisions by traveling from the general to the particular. therefore utilizing tax write-off to back up their thoughts and theories. For illustration. an Aristotelean tax write-off might be that all work forces are mortal.

Socrates is a adult male. and hence Socrates is mortal. Bacon rejected the usage of tax write-off because he believed that you could get at a more right premise by utilizing a few specifics to back up a general statement. A simplistic illustration of inductive logical thinking is. this ice is cold and hence all ice is cold. Bacon proposed that the usage of the deductive.

or demonstrative. system was flawed because it merely produced peculiar statements and non general 1s. For these grounds. Bacon believed that the scientific system of the clip was merely good for scholastic argument on bing cognition.

and was wholly useless in detecting of import plants. or new practical applications. Bacon’s end for scientific enquiry was to detect practical applications that benefited world. which was another difference from the Aristotelean philosophers.

In New Atlantis Bacon says. “ The End of our Foundation is the cognition of Causes. and secret gestures of things ; and the enlarging of the bonds of Human Empire. ” Bacon believed that if cognition did non assist humanity. so it was non of import or worthy of find. He wished to cognize how things worked in order to command them to the advantage of world.

Examples of this type of enquiry in New Atlantis are Bacon’s description of the usage of minerals in medical specialty and his treatment of the usage of scientific discipline in making new workss which are used to feed the people. Bacon’s system of scientific enquiry was designed. by utilizing inductive logical thinking. entirely to detect practical applications that would help humanity. Whereas.

the end of Aristotelean philosophers was to infer truths from the natural universe that might. as an indirect consequence. bring forth practical applications. Rene Descartes promoted a system of scientific enquiry based on mathematics which wholly rejected the doctrine of the ancients.

Descartes believed that his system of enquiry was far more true because it

was based on scientific disciplines which were founded in mathematical certainty. non sentiment.

Descartes adopted a mathematical system. pysico-mathematical. which described the gestures of the universe and became his hallmark and the footing of his method of scientific survey. He developed this by utilizing physical analogies and so using the same mathematical principals to the existence. Descartes believed that all physical affair could be wholly described utilizing mathematics. and this led to his usage of mathematical theoretical accounts.

For illustration. in order to better understand the motion of planets. Descartes created a graphing system which used x. y. omega co-ordinates. The add-on of the " z" co-ordinate.

adding a 3rd dimension. was a permanent mathematical invention. Descartes' belief in mathematics as the best tool for scientific enquiry was so strong that it was of import to him that his method should be taught in the assorted universities. replacing the basically flawed Aristotelean system.

Bacon and Descartes both used God to back up and warrant their systems of scientific enquiry. which is another manner they differed from the traditional Aristotelean school of idea. For illustration. in Bacon's New Atlantis. the society of Bensalem is a Utopian Christian society which is centered on cognition and acquisition. This society represents Bacon's ideal society.

Besides in New Atlantis. the people in the House of Solomon give day-to-day supplications to God in thanks of the cognition that they have learned and

the hope that they can set that cognition to good usage. God plays an even bigger function in Descartes theories. He believes that God put the existence into gesture and that. since God is a perfect being. He conserves all gesture which He introduced into the existence.

This preservation of energy is one of the most of import rules of Descartes' system. and lays the land work for much of his mathematical enquiry. One major difference in how Bacon and Descartes approached scientific enquiry is that Bacon was a major advocate of inductive concluding while Descartes used practical analogies. Bacon supported the thought of taking a few specific experiments so using them to a big wide theory. An illustration of this can be seen in Solomon's House in New Atlantis.

In it Bacon shows how people gather facts from observation and experimentation. others test the facts. so general truths would be drawn from these facts. and so eventually these general truths would be put to practical applications. This was Bacons' ideal theoretical account of larning. and he wanted establishments developed based on the theoretical account of the Solomon's House.

where find of cognition is worked into practical applications that benefit society. Alternatively of entirely utilizing inductive or deductive logical thinking. Descartes frequently used mundane practical experiments and analogies to explicate his principals and Torahs. An illustration of this can be seen with Descartes' analogy of the VAT of wine grapes. which he used as a manner to analyze how the force per unit area of light maps. Another

difference between Bacon and Descartes is that Bacon did non see mathematics as highly of import in scientific enquiry.

whereas Descartes believed that mathematics was the lone manner to detect and larn. Bacon believed that mathematics could be used to assist explicate things. but the cognition could merely be discovered through inductive logical thinking. He stated that mathematics. “ should merely give bounds to natural doctrine non bring forth or engender it. ” This is really contradictory to Descartes’ position of mathematics.

Descartes described everything physical in footings of mathematics. nil else existed for him. Furthermore. Descartes believed that everything that existed could be explained in footings of mathematics.

Although they had their differences. both Francis Bacon and Rene Descartes established and promoted their ain signifiers of scientific enquiry and natural doctrine which challenged the traditional Aristotelean school of idea. Both Bacon and Descartes believed that the old scientific procedures were useless in turn outing good theories. and that God was of import to their systems of scientific enquiry. Bacon believed that Aristotelean methods were worthless without the end of profiting world. and due to the usage of deductive logical thinking.

Descartes believed that scientific discipline should be based on mathematics. instead than sentiments. and described all things in mathematical footings. Because their thoughts were radically different from Aristotelean theories.

both Bacon and Descartes benefited the universe by being major subscribers to the Scientific Revolution. BibliographyBacon. Francis New Atlantis ( 1626 ; 1999 ) Dear. Peter. Revolutionizing the Sciences. Princeton.

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