

科学与神学对谈的认识论： 以霍金宇宙论为例^①

Epistemological Issues in Science and Theology
Dialogue, with references to Hawking's Cosmology

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[英文提要]

This paper explores some fundamental epistemological issues arising from the dialogue between natural science and Christian theology. Stephen Hawking's quantum gravitational cosmology is drawn upon to provide a contemporary focus in the discussion. Hawking's is a universe with no singularity and time is without beginning. For Hawking, the religious implication for such a universe is obvious - "So long as the universe had a beginning, we could suppose it had a creator. But if the universe is really completely self-contained, having no boundary or edge, it would have neither beginning nor end: it would simply be. What place, then, for a creator?"

The fundamental epistemological issues discussed include: "epistemology dualism: are science and religion mutually irrelevant?", "can science disprove or contradict theology?", "epistemology hegemony: is science always right?", "epistemological suspension: God - of - the - gaps", "metaphysical nature of scientific proposal", and "scientific reductionism". The paper concludes that proper epistemological understand-

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ing is essential to an open and fruitful dialogue between science and religion. Moreover, explorations into epistemological issues reflect the true nature of science as well as religion, since epistemology and ontology are integrally related to each other.

美籍犹太裔科学家爱因斯坦(Albert Einstein)被《时代周刊》(Time)选为20世纪的风云人物。《时代周刊》的抉择固然有争议性,但这100年来科学对人们生活与价值观的莫大影响确是无庸置疑的。我们必须知道,对于尚未看见第一架飞机成功起飞,还无法证实原子存在,仍生活在牛顿(Isaac Newton)机械宇宙观的100年前的人们来说,21世纪的今日简直就是另一个星球的世界。

科学新知识与科技新突破确是人类在20世纪最显著与最辉煌的文化成就之一。然而,科学对人类的影响并非仅局限于物质文明生活而已。科学进展自启蒙以来已经彻底改变人们对所处身世界的认识与研究,直接冲击人类知识与文化的每一层面,如社会、政治、经济、教育、伦理、哲学与宗教等。事实上,人文思想与道德价值,社会结构与政经大局,以至人类历史演化的进程与方向等无不与现代科学息息相关。

科学与宗教对谈所涉及的课题甚广。^① 本文以剑桥大学物理学家霍金(Stephen Hawking)的量子引力宇宙论为焦点,探讨科学与宗教对谈所衍生的知识论问题,藉以显示知识论偏差对两者对谈的阻碍以及对两者本质的扭曲。^② 由于现代科学崛起于深受基督教文化影响的欧洲,并且当代的科学与宗教学术对话的大都集中在自然科学与基督教思想之间,本文的科学和宗教对话乃指自然

^① 如生命科学(如基因工程等)对社会或伦理的冲击亦是近年来科学与宗教对谈的另一主要关注。

^② 因篇幅所限,笔者拟另撰文进一步自知识论向度探讨自然科学与基督教神学对谈对个别自然科学研究及基督教神学研究的积极意义与影响。