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Meaning of 'Science' and 'Religion' Related to Indigenous Knowledge of Human Origin and Life Course Among Indonesian and Chinese Students

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Abstract.
By means of the open-ended questions inquiry this study try explore how the meaning of 'science' and 'religion' constructed culturally by Indonesian (n=204) and Chinese (n=125) university student in term of to deepen cross-cultural understanding. All of respondents are students in major of psychology and behavioral science. This study also demonstrate how this indigenous knowledge contributes implicitly to their preconception on human following three categories: (a) Origin of human; (b) Events in human's life span (i.e. Birth, mental activity, and death); and (c) The meaning of human existence. In this research science learning viewed as cultural 'crossing-border' (Aikenhead & Jegede, 1999). This research proves that student's indigenous knowledge on religion and science has an influence on science learning, since they are systems of meaning that offer different answers to the same problem. Both group of respondents mostly see religion as a belief, but Indonesian students tend to interpret science as 'information and knowledge,' while the Chinese students tend to interpret it as 'the truth'. Related to the explanation of human origins and life course, Indonesian students tend to involve theological explanation than Chinese students that rely more on science or other sources as the answer. Beside this, Indonesian students are more prone to 'compartementized answer' (or 'parallel collateral learning' according to Aikenhead & Jegede) rather than Chinese students in the topic of human origin.

Keyword: *science learning, religion, indigenous knowledge*

INTRODUCTION

By mention science as 'power that alienated from God' which destroyed all the meaning of the world constructed by religion, Max Weber in *Science as a Vocational* highlighted the irrefutable of incommensurability between science knowledge and religious systems of thought (Wiebe, 1993). However, the idea that religion and science are two fundamentally opposing forces has considered as overstated (Clayton, 2005; Pannenberg, 2005; Stone, 2002). Only minority of scientists perceive religion and science as always in conflict (Ecklund, Park, & Sorrell, 2011; Ecklund & Park, 2009).

Common grounds between science and religion are not impossible, for disputation between both only on certain epistemological and moral issues, such as on origin of human and universe, and some ethical issues –besides every religion has different level on its disputation with science (Lee, Tegmark & Chita-Tegmark, 2013; Evans, 2011). On those specific issues the relationship between science and religion appear into unreconciled conflict due to differences meaning in the construction of knowledge between them.

Both science and religion seems as construction of knowledge that formed by cultural differences. Culture is "... an historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge about and attitudes toward life" (Geertz, 1973).

Since science itself is a form of cultural knowledge, Aikenhead and Jegede (1999) explain that science learning is also a matter of how students move on between the world lives of their everyday culture and the world of science. By coined the term 'collateral learning' they proposed a spectrum of cognitive experiences (parallel, simultaneous, dependent, and secured collateral learning) on how students from a non-western culture to do cultural 'crossing-border' when studying science –a western product of knowledge.

Study by Robert A. Campbell (2005) on two Canadian universities students perceptions of the relationship between religion, science, and their thinking about the meaning of life showed that every culture has different way to perceive that problem. Generally, he suggest that students in Canadian universities view religion and science as independent entities, both with respect to the part that these play in the life of individuals and in world affairs.

Study by Assaraf, Eshach, Orion, and Alamour (2012) reported a difference between the Muslim students of Bedouin indigenous community that use the theological reason in their explanation of the water

cycle and the secular students of Jewish in mental models of the water cycle. Ogunniyi et al. (1995) confirms the notion that science teachers in five non-western countries (Botswana, Indonesia, Japan, Nigeria, and the Philippines) also hold a multiplicity of worldview presuppositions due to cultural influence. Hongming Ma (2009) with 25 Chinese Secondary school science teachers as subjects, explain that nature in a Chinese cultural context have been diverse and dynamic. Ma also belief that their conceptualization of Nature had been significantly shaped by their understanding of the nature of science.

This means that science is not free from cultural influence, and knowledge that derived from science could be conflicting with indigenous knowledge of students. Hence 'religion' and 'science' may view as two contingent of cultural knowledge that relatively equal to each other, and may construced in various ways among different cultures. Adopting this assumption, present study will explore how Chinese and Indonesia students constructing meaning on 'science' and 'religion' and its contribution to worldview presuppositions in a certain disputed topics between science and religion.

Rethinking 'science' and 'religion': a constructionist perspective

Dualism of 'scientific knowledge' and 'indigenous knowledge,' is followed by some binary oppositions that divide 'nature' with 'culture', 'the West' with 'the East', and 'modern' with 'traditional', and 'the civilized' with 'the savage;' distinctions which potentially slips into race-based notions of social evolution from primitive (Indigenous knowledge) to civilized (scientific knowledge) (Green, 2008; Johnson & Murton, 2006). Contrary with this dualism view, this research viewed the meaning of 'religion' and 'science' can be constructed differently by society with different cultural backgrounds. Religion and science are not definite and permanent cultural categories; otherwise both are relative terms over space and time and can change its meaning due to the influence of driving forces such as local culture background, globalization, and climate change (Bauman, 2011).

The concept of 'religion' firstly was produced by Christians and generalized later in a secular outfit by post-Reformation and post-Enlightenment as scholarly construct with the development of the so-called 'science of religion' (*Religionswissenschaft*) (Harisson, 1990). Yet 'religion' assume has a cross-cultural or a transhistorical relevance, but the omnipresence of religion' in the world at present, according to Wiener (2004), "must be understood as a colonial formation." Religion is "an outcome of power-laden interactions between European administrators, jurists, missionaries, Orientalists, and yes, ethnologists, with intellectuals, bureaucratic functionaries, ritual specialists and activists in colonial societies." (Wiener, 2004) Together they established 'religion' by use of a myriad of existing practices, texts and experiences, "highlighting what fit most comfortably into channels carved out by European Christianity in its negotiations with science. Some religions were cast as local, tied to specific sites and social groups, especially those identified with 'primitive' societies; others appeared mobile, and thus 'world religions.'" (Wiener, 2004)

Even 'science' often seems as exclusively western origin cultural category, but this term interpreted in different modification in every culture as result of assimilation. For example, Japanese translation of 'science' was *kagakugijutsu*, which can be rendered literary in English as 'techno-science.' Besides this term admits a close relationship between science and technology, according to Aikenhead & Otsuji (2000), this translation represents how Japanese have traditionally dealt with Western science by treating it as a materialistic benefit rather than a way of knowing nature.

Cobern and Aikenhead (1998) perceive science as a sub-culture of the culture of 'Western' or Euro-American, which is not always the same as the culture of everyday life of western students. As a sub-culture, science learning process also often creates tensions in the western students' cognitive – it imply that relation between 'science' category and 'western' category rather than without upheaval, but problematic.

Quoting John Staver' argument which stated that "Western conceptions of truth and knowledge are the taproots of the discord between science and religion," Reiss (2010) offers a version of constructivism which views human capable of generating reality models that provide a richer understanding and more meaningful from reality, from time to time and with equal respect for both science and religion. Regmi & Fleming (2011) suggest that research in indigenous communities has to be more intentional and respectful to multi-cultural perspective. Shortly, it is possible to positioning science learning process and religion in parallel from point of view of social constructionist perspective, while the both are not exactly same each other. Thus the dichotomy that perceived science as representation of globalize western objective knowledge and while indigenous knowledge as a local eastern subjective knowledge should be reconsidered. Therefore, this study intends to explore how the 'science' and 'religion' constructed differently by two societies with different cultural backgrounds, i.e. Chinese and Indonesian students.

The use of 'indigenous knowledge' in present research not implies that there is some kind of non-western production knowledge that opposite directly to 'scientific knowledge' which belongs to western society. Without ignore a critic which propose that 'indigenous knowledge' term usage will perpetuate its artificial distinction from 'science' (Green, 2008), this research use the term simply as the ways of knowing, seeing, and thinking that shared among members of a community with the same language. This definition has

a closer meaning to what Benjamin Lee Whorf (1956) called as 'background phenomena', a linguistic consensus that forming knowledge which deal in any foreground activities of talking and of reaching agreement, including "weighing of scientific theories" and "formulation of scientific results."

To complete later discussion with a contextual background, the next section will talk about how 'religion' and 'science' is defined and positioned in China and Indonesian in different way as indigenous knowledge.

Indonesian and Chinese cultural view on science and religion

Religion

There is a prominent difference between the Indonesian and Chinese attitudes towards religion. When 53.41 % of people in People Republic of China (PRC) identified themselves as non-religious (Tao, 2012), in contemporary Indonesia people who declared themselves as atheists or agnostics could be charge as a religion blasphemer. Every adult in Indonesia must have a religion due to state law. According to official statistic on religion in Indonesia in 2010, 87.18% of Indonesians identified themselves as Muslim, 6.96% Protestant, 2.91% Catholic, 1.69% Hindu, 0.72% Buddhist, 0.05% Confucius, 0.13% other, and 0.38% unstated or not asked (BPS, 2010). Although this official data cannot be used to prove that no one in Indonesia identified themselves as non-religious, but it shows that in Indonesia religion has more important and dominant influence to people in Indonesia than in China. Even compared to three decades ago, contemporary China becomes more and more religious (Yang, 2005), still both statistical data shows us that religion remain has relatively small influence to average of Chinese than to Indonesians.

Zôngjiào (—[Ye) is an expression in Chinese to the concept of 'religion' which first appeared in the 20th century by Japanese (Lizhu, 2011; Jones, 2005). This word more precisely defined as 'moralization by sacred way' or literary means 'ancestral/sectarian teaching' (Lizhu, 2011; Jones, 2005), which is very different from the definition of religion as 'a personal set or institutionalized system of religious attitudes, beliefs, and practices' in English.

Definition of 'religion' in English suggests religion is an institution by its adherents as a member, while the definition of 'religion' in the realm of public knowledge of China is not the case. Religion as an institution implies a person to choose one religion as guidance, but as 'moralization by sacred way' does not imply such understanding. In China, folk religion believer become majority (31.09%); compare to other religions, i.e. Buddhism (10.85%) and Christianity (3.54%) (Tao, 2012). 'Folk religion' and 'popular religion' in Chinese known as *sânjiào* (NYe), or the "three teachings," referring to combination of Confucianism, Daoism, and Buddhism in one way (Jones, 2005).

Under this term of folk religion, religious membership not considered as an essential. But it doesn't means that Chinese people not religious by any means (Yao & Zhao, 2010), this just imply that concept of religion in China has a more flexible membership, or not have any rigid boundaries in membership between one religion and the others. This is why Chinese more easily answer the question "what do you believe in?" Than the question "To which religion do you belong?" (Lizhu, 2011).

In Indonesia, the category 'religion' mostly translated as *agama*. Contemporary Indonesian language dictionary, *Kamus Besar Bahasa Indonesia* (2012) explains *agama* as: "*ajaran, sistem yg mengatur tata keimanan (kepercayaan) dan peribadatan kpd Tuhan Yang Mahakuasa serta tata kaidah yg berhubungan dng pergaulan manusia dan manusia serta lingkungannya.*" ["teaching, system that regulates the faith (belief) and worship to the God Almighty and rules order with regard to human relationships and people and the environment"]. Etymologically, this definition had been changed from Sanskrit loanword *agama* that originally had a double meaning: firstly, "a traditional precept, doctrine, body of precepts, collection of such doctrines"; secondly, "anything handed down as fixed by tradition" (Picard , 2011; Ramstedt, 2005)

The modern translation of *agama* in Indonesia is a peculiar combination in Sanskrit guise of a Christian view of what counts as a world religion (sometimes used in another form as *religi*) with an Islamic view on a proper religion: (1) divine (revelation recorded by a prophet in a holy book, (2) a system of law for the community of believers, (3) congregational worship, and (4) a belief in the One and Only God (Picard, 2011). In Indonesia, every official religion assumed as fitting with these four traits even for non-theism religion such Buddhism. This strict definition of religion also presupposes that every human (particularly Indonesian) should affiliate to one religion.

Science

Transmission of European science to China started at least since the 17th and 18th century, in the early modern period and during the Qing Dynasty in China, through Jesuit missionaries (Schemmel, 2012). Modern Chinese word for science, *kçxué* (Ñyf[) probably is a literary translation of Latin word *scientia* which the meaning is 'specialized learning.' This word used since 20th century, but before this Chinese already familiar with a sort of 'indigenous science' which is known as natural studies (*gézhì* <hô) and natural history (*bówù* ZSir) (Elman, 2006).

While acknowledging that European science is more accurate in calculation, but the Chinese people consider it weaker in 'fathoming the principles' (*qióngl-* wzt) (Schemmel, 2012). As a result the European science from that period was not fully integrated in the system of knowledge of Chinese and be used only as a footnote to the classic texts of local science. Although since the 1978's, western thought and methodology increasingly

become mainstream, but Chinese still consider "complete westernization" as a threat (Youzheng, 1989). For this reason, some western scholars questioned the existence of 'modern science' in contemporary China: for them Chinese science seems not sufficient in methodological skill and sometimes mixes traditional myths with scientific knowledge (MacPhail, 2009; Kim, 1982).

In China today, 'Chinese science' (or 'science with Chinese characteristic') was developed with emphasis on aspects of its application rather than rigor of scientific methods. The word *kçjì* (ÑyЄb), which means 'sci-tech' –which is alike with Japanese term "*kagakugijutsu*"— showed this Chinese perspective on science (MacPhail, 2009).

While, western science is more concerned with curiosity and creativity as fundamental value, Chinese science is more concerned with morality and ethics which came from Marxism and Chinese traditional value (Gao, 1998; Wang et al. 1996). The purpose of science school in China is not only to convey knowledge of scientific or develop the ability to perform activities of scientific methodology, but especially to " train socialist citizens who have lofty ideas, moral integrity, a good education and a strong sense of discipline" and to "improve the quality of the entire nation" (Gao, 1998).

In Indonesia, 'science' often translated as '*ilmu pengetahuan*.' The word '*ilmu pengetahuan*', which is combined by two term '*ilmu*' and '*pengetahuan*', has a broad and abstract sense. Both '*ilmu*' and '*pengetahuan*,' can be interpreted as 'knowledge.' So the word of '*ilmu pengetahuan*' can be translated as 'knowledge of knowledge' –term with obscure meaning. This fact not only shows that Indonesian do not have any sufficient word to express 'science', but it also shows that science likely ambiguous from Indonesian point of view.

Ambiguity of the concept of science in Indonesia is also evident from the extent of the use of the word '*ilmu*' in Indonesia, which is alone commonly translated as science. In fact, in Indonesia the word '*ilmu*' is not only used to translate as 'science', but is used too to express mixture of things that some will be contrasted with the notion of 'science' in the West, such as '*ilmu agama*' ('knowledge of religion'), '*ilmu akhlak*' ('knowledge of morals'), '*ilmu gaib*' ('witchcraft'), or '*ilmu kesaktian*' ('supranatural power'). In another sense, '*ilmu*' in Indonesian society, especially in its early form in Javanese word '*ngélmu*', sometimes also has association as "magical power or esoteric knowledge" (Pemberton, 1994)

The expression that comes closest to 'science' may be only be represented by the word '*iptek*', a new term which was created under the New Order state in Indonesia (1968-1998), which is an acronym of '*ilmu pengetahuan dan teknologi*' ('science and technology'). This shows that perspective on science in Indonesia has in common with a view of Chinese science, both see science from sense of the application. As 'iptek', science in Indonesia is always juxtaposed with another acronym, '*imtaq*', i.e. '*iman dan taqwa*' ('faith and piety'). '*Imtaq*' is the representation of religion. Both usually used in the assumption that *iptek* and *imtaq* are compatible each other (Amir, 2013). Science and religion are considered as things that can be balanced and integrated. This is not too surprising because in Indonesia both religion and science are equal as variations of '*ilmu*' as mentioned before.

A disputed domain: human origin and life course as subject of 'human science'.

This study particularly using cultural knowledge gaps regarding the human origins and life courses as a focus of research in because of the question of human origins and meaning of human life is one point of contention between science and religion during this time (Evans, 2011; Ecklund and Park, 2009 ; Kovach, 2002).

This topic essentially belong to what Michel Foucault (1970) called as 'human science' –a domain of knowledge that even do not possess the scientific criteria form of knowledge as natural science to analyze human objectively, but successfully employ a body of discourse. This domain, such psychology and sociology, according to Foucault (1970), "occupy the distance that separates (though not without connecting them) biology, economics, and philology from that which gives them possibility in the very being of man."

For this domain trapped in between objectivity of and subjectivity, human body and activity turn out to be competing ground between science secular cognitive and religion theological interpretation (Kovach, 2002). And for this reason, this topic is expected to help this research reveals how the differences in constructing meaning of 'science' and 'religion' in affecting the indigenous knowledge on specific key issues.

Additionally, this topic selected by considering the behavioral science and psychology educational background of students in both university, i.e. University of Surabaya and Zhejiang University.

Research goals

The aim of this study is to descibe how Indonesian and Chinese student culturally construct their meaning of 'science' and 'religion', and how this indigenous knowledge implicitly contribute to their preconception on human origin and human life following three categories: (a) Origin of human; (b) Human life courses (i.e. birth, mental activity, and death); and (c) The meaning of human existence.

METHODS

Participants

The participants in this research will be composed of 200 university students in University of Surabaya, Surabaya, Indonesia, and 200 university students in University of Zhejiang, Hang Zhou, China.

Instrument

The instrument used is the open-ended questions developed by Kim (2009). Open-ended questions are research questions which give the respondents the freedom to answer the questions as they like. In this study the respondents are asked to answer the following question, "What is religion?" "What is science?" "Where are human beings came from?"

"What make a human being born in this world?" "What make human's mind works?" "What happen when a human death?" and "Why human exist?"

Analysis

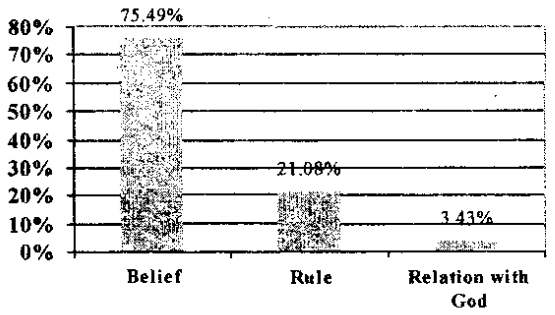
The analysis of the collected data analyzed by thematic analysis method which introduced by Braun and Clarke (2006). They defined thematic analysis as "a method for identifying, analyzing and reporting patterns (themes) within data." Thematic analysis is performed through the process of coding in six phases to create conventional, meaningful pattern. These phases are: familiarization with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report.

In order to generating initial codes and searching for theme, each response collected from open-ended questionnaire will be named by its theme in order to define the basics unit of the text. Data were grouped into several categories by help of three coders from each culture. The each group of coder will analyze data by conflicting their arguments. This categorization process was done in several stages until the core categories were found.

RESULT

What is Religion?

Figure 1. Indonesian students on meaning of religion (n = 204)

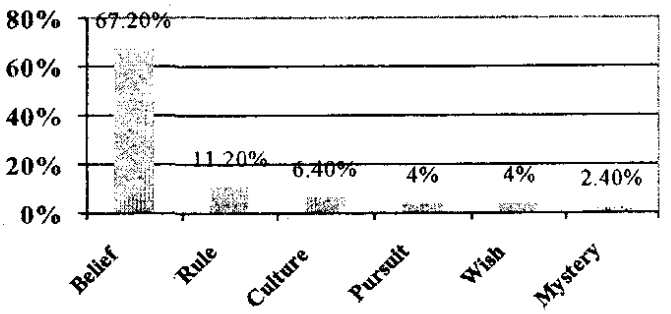


The aim of this question is to explore respondents' meaning of religion.

Most of Indonesian (75.49 %) and Chinese (67.2%) students describe religion as 'belief.' The second higher answers for both counterparts are religion as 'rule' (see Figure 1 and 2). This result explain that both Indonesian and Chinese students mostly similar on how they define the concept of 'religion.'

The differences of both on this issue can be explained through other categories. Around 3.43% of Indonesian students see religion as 'relation between human and God.' On the other hand Chinese students describe religion as culture (6.4%), pursuit (4%), wish (4%) and mystery (2,4%).

Figure 2. Chinese students on meaning of religion (n=125)



What is Science?

Predominantly Indonesian students view science as information and knowledge (54.9%), besides as empirical proof (17.64%) and ideas (14.21%) (see figure 3). In this sense science is something that gained from external world or comes from thinking process.

In the other hand, the meaning of science according to Chinese students mostly determined by three main categories, e.g. truth (29.6%), probability (20.8%), and knowledge (20.8%) (see figure 4.).

Table 3. Indonesian students on meaning of science

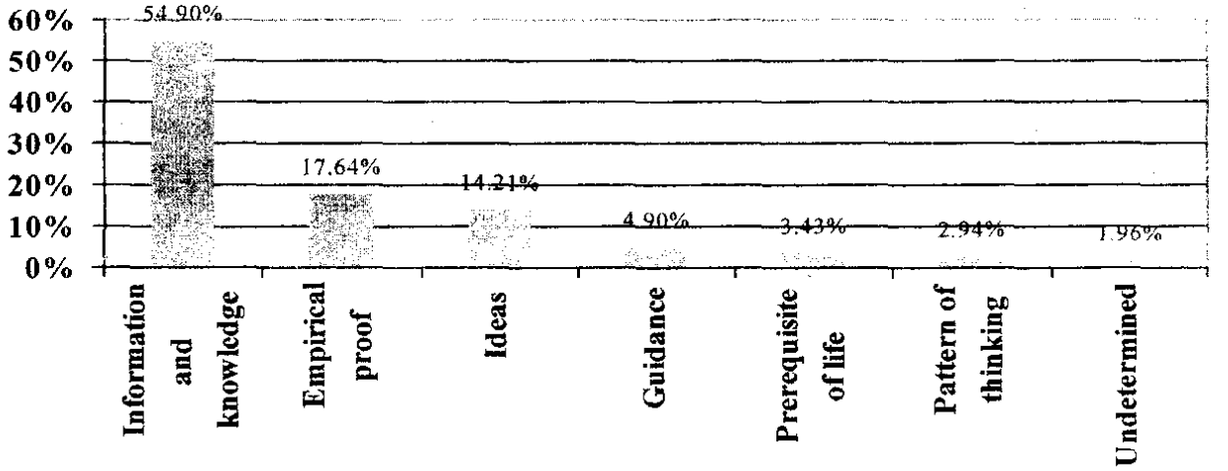
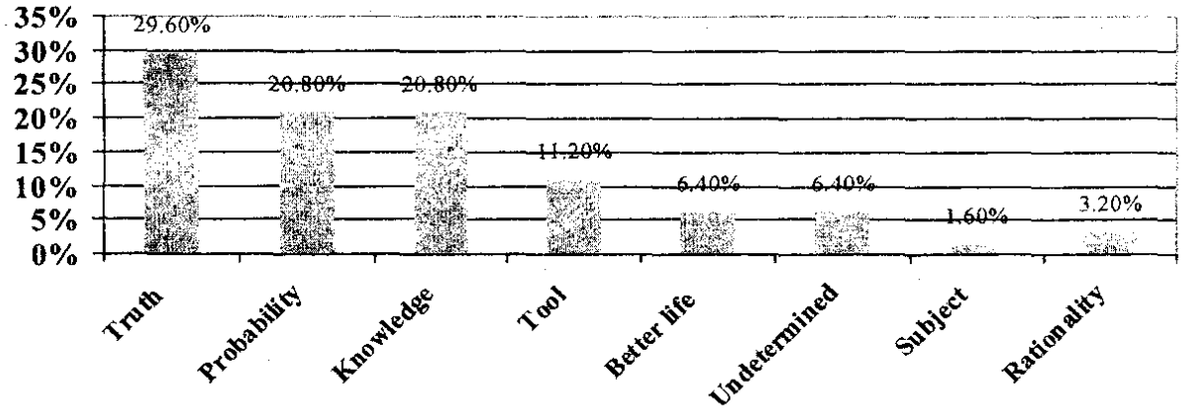


Figure 4. Chinese students on meaning of science (n= 125)



Where human beings are came from?

The most visible distinction between Indonesian and Chinese students can be observed from their responses to the question of the origin of human beings. While most of Indonesian student respondents refer to theological reasoning which belong to myth of creation as the answer (65.19%) contradicted with most of Chinese student respondents that believe evolution is the answer (80%). Oppositely, just small amount of Chinese students believe that humans beings came from 'the Creator' (3.3%) and so not many Indonesian students pick evolution as origin of human (6.86%).

Indonesian student respondents also showed that responses that can be categorized as 'compatermentized answer' (8.33%); in which it does not appear on the Chinese student respondents. This type of response shows a conflict between knowledge derived from science with knowledge that induced by religion in the student with the appearance of multiple answers as in the following samples: *"Humans came from Adam and Eve. Humans are also comes from mono organism to the primate", "In religion: the descendants of adam and eve from god, the science: ape revolution"., etc.* (See the Appendix A.3.)

Akinhead and Jegede (1999) also called it as parallel collateral learning or the compartmentalization technique. It's happen when students have more than one schema in their corpus of knowledge on certain topic and access it depending upon the context. In this case, Indonesan students will use scientiûc concept of evolution only in their school, never in their everyday world where myth of creation prevail.

Figure 5. Indonesian student on the origin of human beings (n=204)

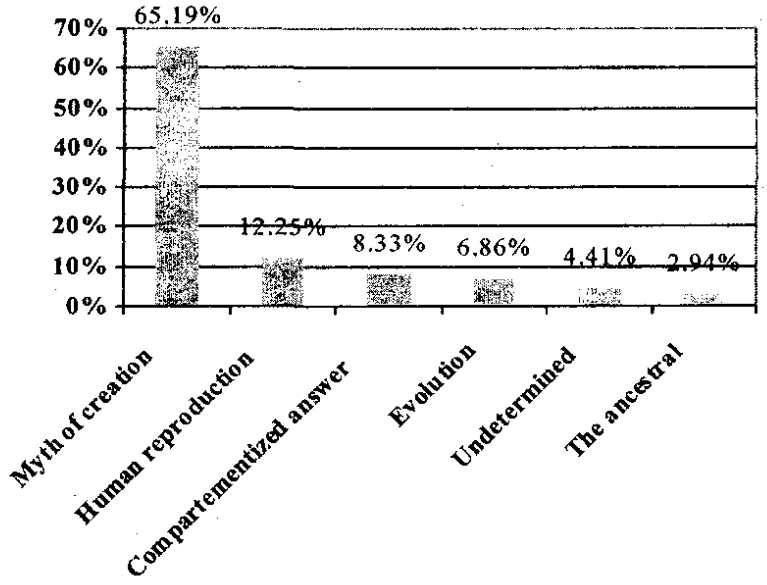
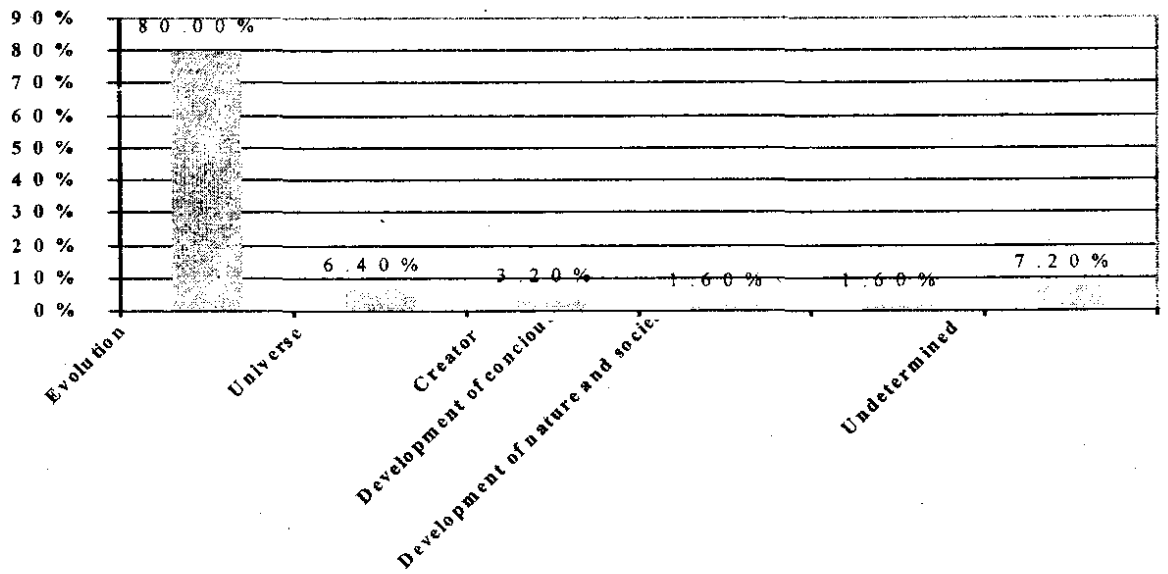


Table 6. Chinese students on the origin of human being



What make a human being born in this world?

The majority of respondents of Indonesian students imply theological reasons when they explain the causes of people be born in this world. 52.4% of their answers could be categorized under 'God's will' theme and 6.86% for 'the myth of creation.'

Compared with 25.49% Indonesian student respondents whose said that genetical cause as the answer, more than a half of Chinese student respondents pointed out that biological factors (57.6%), evolution (15.2%), and instinc (4.8%) as the reason for the birth of a human being. This type of answer could be categorized as secural rather than theological.

Some categories of responses that seemed philosophical like 'to find one self' (3.2%), 'to fullfil a duty' (1.6%), and 'coincidence' (3.2%) in Chinese respondents slightly difference with their counterpart. Conversely, 'compartementized answer' (3.92%) and other categories like 'karma' (3.43%) only appears in Indonesian.

Romanized responses which refer to 'love' as the cause of human birth appears in both: 9.6% in Chinese and 3.92% in Indonesian. Probably the usage of term 'love' by respondents in this case is a way to replace the word 'sex' that considered as a taboo by both cultures.

Figure 7. Indonesian students on 1st theme of human life course: birth (n= 204)

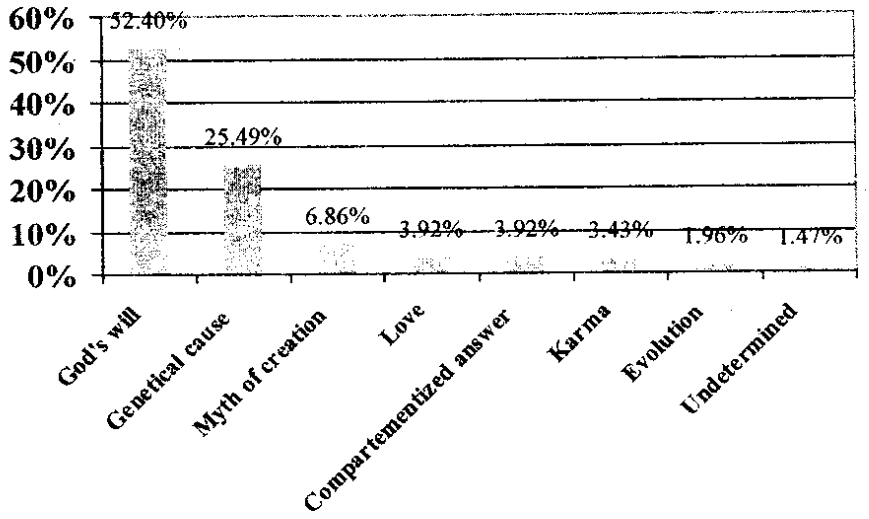
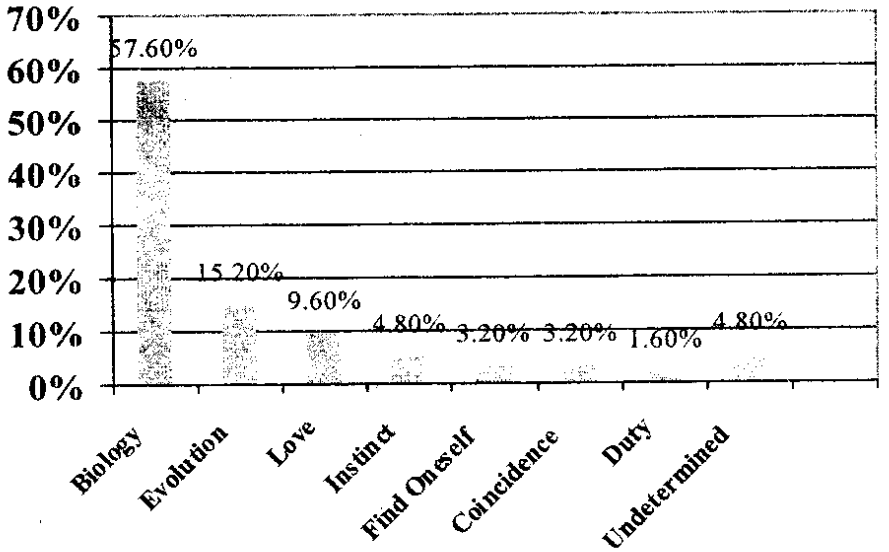


Figure 8. Chinese students on 1st theme of human life course: birth (n=125)



What make human's mind works?

More than half of Indonesian and Chinese refer to biological cause in order to explain what make human's mind work. Indonesian students pointing at mental activities and organs (69.12%) as the cause compare with Chinese that mentioned biological cause (58.4%) and instinct (11.2%).

Other Indonesian student respondents said that reason why human's mind works is because that human beings are special creation of God (10.78%). This response likely in line with other response categories which argues that God's will is the reason why human beings can think (10.29%). Only 1.6% of Chinese students that implicitly revealed divine intercession in human's mind works process which is viewed as a gift. But this tendency does not show up on the rest of the responses of Chinese students which saw the human mind as a result of knowledge (8.8%), consciousness (4.8%), motivation to survive (3.2%), work (3.2), and love (1.6%). In a small scale, Indonesian students also mentioned the similar categories like learning process (6.37%) and social aspect of human existence (1.96%) as a reason why human's mind work.

Compared with Indonesian students responses to previous questions, 'compartementized answer' reoccur in smaller scale (0.98%) on this theme.

Figure 9. Indonesian students on the 2nd theme of human life course: mind (n=204)

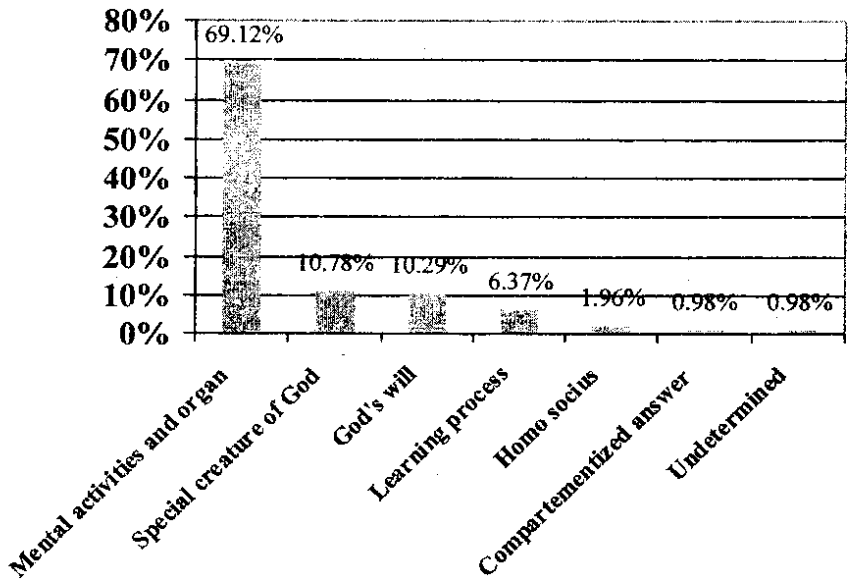
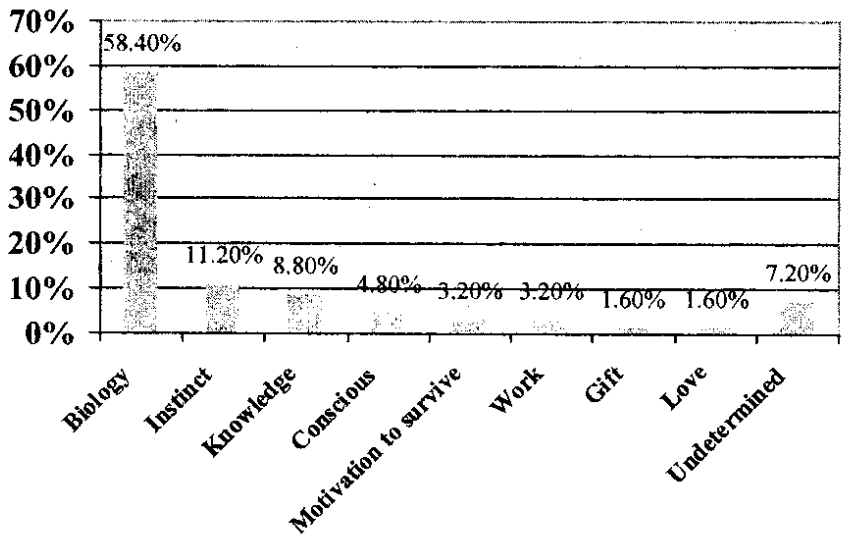


Figure 10. Chinese students on the 2nd theme of human life course: mind (n=125)



What happen when a human death

32.84% of Indonesian student respondents conclude that after a human passed away he/she will be judged in order to be placed in hell or heaven, be in accordance with 6.4% of Chinese students that have a similar ideas. Together with category 'back to the God' (14.22%), this facts shows that religious ideas still became major trend in Indonesian students answer than Chinese.

Almost in the same scale, both counterparts said that 'annihilation' will be the consequence that follow human's death (Indonesian 17.65% and Chinese 24.8%). This responses viewed death as a devastated state and an absolute end.

The concept of death as loss of physical function appear higher in Chinese students (12.8%) than in Indonesian (7.84%). Chinese coders differentiated this concept into 'loss of physical function and concious' (4.8%) and 'loss of concious' (1.6%). It also assume that Chinese students put higher consideration in this concept.

Interestingly, the second highest bar from Chinese table is 'undetermined' (24%). Probably some Chinese students have no consideration about after death concept. The other posibility is Chinese students get difficulties in understanding this question.

Figure 11. Indonesian students on the 3rd theme of human life course: death (n=204)

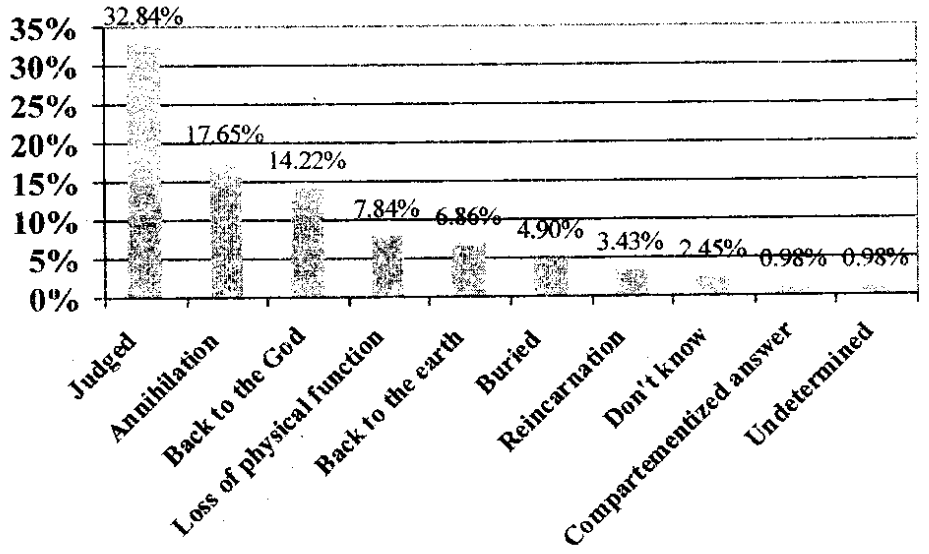


Figure 12. Chinese students on the 3rd theme of human life course: death (n=125)

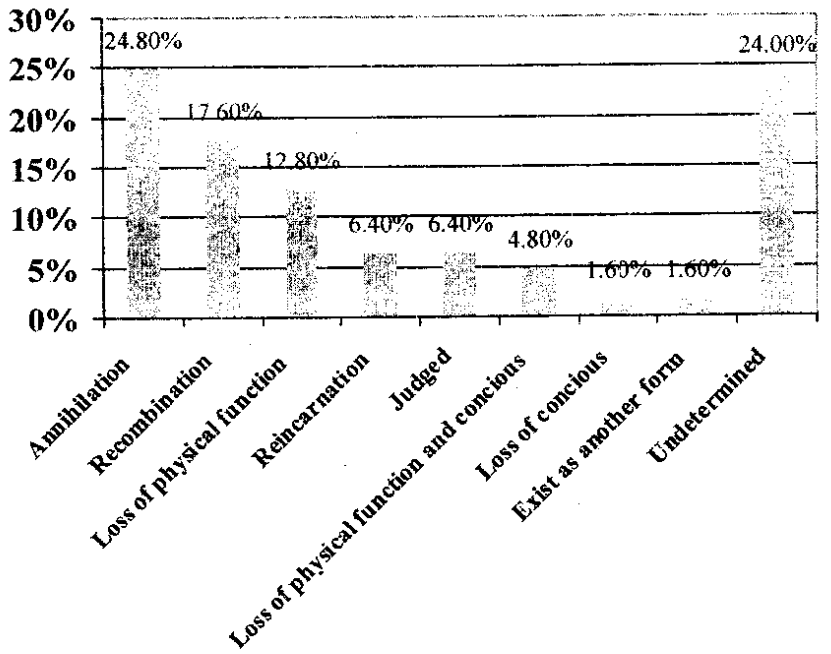
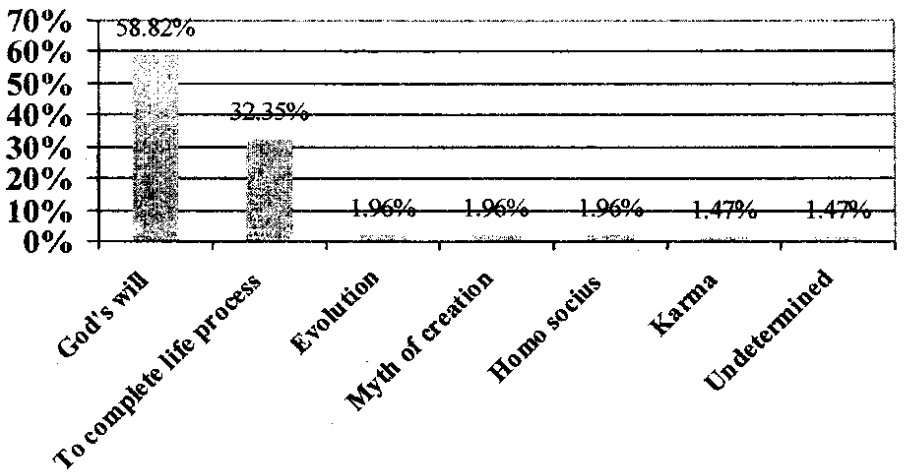


Figure 13. Indonesian students on the meaning of human existence (n=204)

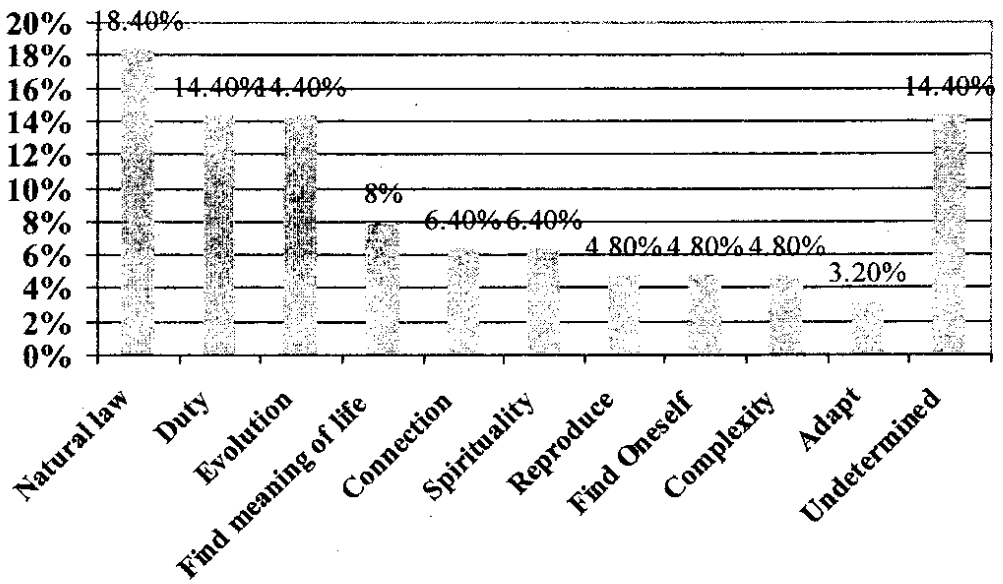


Why human exist?

Mostly Indonesian student answers to the question of human existence can be categorized in two which is 'God's will' (58.82%) and 'to completed life process' (32.35%). In other hand Chinese students answer majory can be categorized into three categories, e.g. natural law (18.4%), duty (14.4%), and evolution (14.4%)

In this case, undetermined answer reoccur in Chinese student in significant scale (14.4%) compare to Indonesian (1.47%). The feasibility of this question is Indonesian students more confidence to answer human existence problem than Chinese students due to input from their religious references of truth.

Figure 14. Chinese students on the meaning of human existence (n=125)



DISCUSSION

Either Indonesians or Chineses predominantly use 'belief' and 'rule' as their way in define concept of religion. Even though for Indonesian, religion is not matter only of belief and rule, but also about 'relation with God' –Implicity it's a recognition of existence of a divine being. In the other hand Chineses tend to viewed religion more as a result or a part of human activities – like culture, pursuit, or wish— without mentioned existence of any divine entities in their definition of religion. Hence for most of Indonesian religion was derived from extra-human being, but for most of Chinese it is a man-made phenomena.

Most of Indonesian students tend to interpret science more as 'information and knowledge,' while Chinese interpret it as 'truth.' Science as information and knowledge has less authoritative claim than science as a truth. As information and knowledge science is still needed to be evaluated, screened, monitored, and confirmed by other truth references, but when science defined as a truth it's become the reference itself. So for

Chinese students science is way to reach the truth rather than Indonesians.

By their constructed meaning of religion and science we may assume tha for most of Indonesian students see religion has a higher degree of truth (since religion is a revelation from a celestial being) than science; in opposition most of Chinese viewed science as a more reliable truth. This assumption confirmed later by the following result that shown the discrepancy between both counterparts on their explanation of human origins and life course. Indonesian students tend to involve theological explanation while Chinese students that rely more on science literature or other human-oriented sources –rather than the religious one—as their reference of truth.

Beside this, Indonesian students are more prone to 'compartementized answer' (or 'parallel collateral learning' according to Aikenhead & Jegede, 1999) rather than Chinese students particularly in the topic of human origin. Conflict of knowledges that comes from gap between science education and their religious teaching has shown up higher in Indonesian students. In the other hand due to their orientation on science Chinese students get more hesitate in explaining more abstract-philosophical problem, like after-death and meaning of existence issues, than Indonesian students.

At the end result of this discussion does not convey that Indonesian students are weaker than Chinese students in science studies, this research solely suggest that diversity in students indigineous knowledge may have influence their orientation and understanding of the subject of their study, particulary human science.

Conclusion

This research proves that student's indigenous knowledge on religion and science has an influence on science learning, since they are systems of meaning that offer different answers for the same problem. The finding of this research confirmed the argument of John Staver (Reiss, 2010) that viewed conceptions of truth and knowledge as are the root of the conflict between science and religion. Following Regmi & Fleming (2011) suggestion that research in indigenous communities has to be more intentional and respectful to multi-cultural perspective, researcher see this suggestion could also be applicable in cience teaching.

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