What are the Perspectives of Indonesian Students to Japanese Ritual during Solar Eclipse?

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Abstract. In this globalization era, many people still believe the myths about solar eclipse. The myths about solar eclipse are different between one country or are to another. In this context, the aim of this study was to investigate the perspective of Indonesian students in viewing how the Japanese people face their believing myths in solar eclipse. This research also investigated the student belief on several mythical stories in Indonesia, their understanding of the Islamic view, and their knowledge based on science concept relating to the solar eclipse phenomenon. Based on the results, the Indonesian student think that there is no significant difference between Indonesian and Japanese people in facing the solar eclipse.

1. Introduction
Total solar eclipse is a phenomenon which occurs when the position of the moon, the earth and the sun are aligned. Therefore, the moon shadow through the earth and covered the sunlight into the earth [1-4]. Because of this phenomenon turns the day becomes dark, many people relate this phenomenon with mystical event [5-7]. Believes in the myths are not only exist in under develop countries but also developed countries such as Japan.

Japan is a well-known country that is one of the pioneers for developing technology and modernizing social culture [8]. Japan is one of the countries that maintain its culture, including its myths facing the natural event (such as solar eclipse). That makes Japanese culture to be learned and studied in all over the world [9].

Here, the purpose of this study was to investigate the perspective of Indonesian students (who are focusing study in Japanese culture and language) in viewing the Japanese people in facing solar eclipse phenomenon. The study was also compared with Indonesian myths. This research also investigated the student belief on several mythical stories, their understanding of the Islamic view, and their knowledge based on science concept relating to the solar eclipse phenomenon.
2. The Cultural View in Japan and Indonesia, Comparing to Islamic View and Science Concept

2.1. Japanese culture facing the solar eclipse
During the solar eclipse, ancient Japanese believe in Shinto religion (worship to the God of Sun) that poison is spread out. Therefore, ancient Japanese close their wells for avoiding the poison to come to the water. Further, they also hang up amulet (made by a stone) above the tree [10].

2.2. Pre-Islamic Indonesian culture facing the solar eclipse
In pre-Islamic Indonesian in Java, they believe that the solar eclipse occurs because Batara Kala demon devouring the sun. Therefore, they must do several rituals, such as pregnant women and children should not go outside. Further they must hide to avoid the anger of Batara Kala. Further, they must not do several activities, such as eating, cooking, looking at the sun, constructing a house, and celebrating marriage [5, 11, 12].

2.3. Islamic view about eclipse
In Islam, a solar eclipse phenomenon has been explained in these following hadiths (translated from Arabic) [13, 14]:

Narrated Al-Mughira bin Shu’ba (In Bukhari, Book: 16; Hadith: 1043): "The sun eclipsed in the life-time of Allah’s Messenger on the day when (his son) Ibrahim died. So the people said that the sun had eclipsed because of the death of Ibrahim. Allah’s Messenger said, "The sun and the moon do not eclipse because of the death or life (i.e. birth) of someone. When you see the eclipse offer Salat (prayer) and invoke Allah."

Narrated Abu Bakr (RA) (In Bukhari, Book: 16; Hadith: 1040): “We were with Allah’s Messenger when the sun eclipsed. Allah’s Messenger stood up dragging his cloak till he entered the Mosque. He led us in a two-Rak’a prayer till the sun (eclipse) had cleared. Then the Prophet (p.b.u.h) said, "The sun and the moon do not eclipse because of someone’s death. So whenever you see these eclipses offer Salat and invoke (Allah) till the eclipse has cleared."

Aishah narrated that (In Sunan Abu Dawud, Book of The Prayer for Rain; Hadith: 1191): “The Prophet (p.b.u.h) said: “The sun and the moon do not eclipse due to the life (birth) or death of anyone. So when you witness it (an eclipse), supplicate to Allah, the Mighty & Sublime, say the Takbir and give charity.”

Asma narrated (In Sunan Abu Dawud, Book of The Prayer for Rain; Hadith: 1192): “The Prophet (p.b.u.h) would command that slaves be freed during the eclipse prayer.”

Based on the above hadiths, we can conclude that in Islamic views, the solar eclipse phenomenon has no relation to the birth or the death of someone. This phenomenon is a reminder from Allah to His devotees about the end of times (Armageddon or Qayamah). Therefore, during the solar eclipse, Muslims are recommended to offering Ibadah, such as: (i) praying (Salat), (ii) giving a charity (Sadaqa), (iii) freeing slaves, and (iv) asking the God for forgiveness from the torments of the grave (iv).

2.4. Scientific views about solar eclipse
Solar eclipse is a natural phenomenon that the sun is covered by the moon for several minutes [1-3]. During the solar eclipse, several incidents can be observed, such as the changing color of the sky, the moving shadow, the shadows bands, the corona and its prominences, the sun’s chromospheres, the diamond ring formation. Further, planets and stars suddenly become visible against the darkening sky [2]. The solar eclipse happens at least twice a year. Solar eclipse has almost no impact to the human.
The effect of the solar eclipse is found only when human is looking sun during by naked eyes [11, 12, 15-20].

3. Research Methodology
To investigate Indonesian students’ perspective to the Japanese myth, we took a survey to 51 students who are focusing study in Japanese Language in Department of Japanese Language Education in Universitas Pendidikan Indonesia. We took subjects with different ages and grades, which are between 18 and 22 years old. The survey was taken from February 27 to March 10, 2016.

To identify the survey for the student opinion about the total solar eclipse myth, the student completed a short questionnaire about the solar eclipse fact and myth. The questionnaire consists of 8 items of statements on three-point likert scale. The questionnaire subjects were allowed to fill out the questionnaire for 15 minutes. The result of the survey was then analyzed using a SPSS software to get a precise trend about the students’ opinion about total solar eclipse myth in Indonesia and Japan.

4. Results and Discussion
Table 1 shows result of students responses to the questionnaire about their opinion regarding solar eclipse myth. Based on this table, 94% of students know that total solar eclipse is one of natural phenomena, whereas 65% of respondents do not believe the myth about total solar eclipse. We also found that 50% of respondents do not believe the myth that eating, constructing a house and celebrating marriage are not allowed during total solar eclipse. However, 55% of respondents believed that during the solar eclipse, people should do religious activity such as going to worship, giving charity, and praying.

Based on the above results, research subjects believed that the total solar eclipse is a natural phenomenon. Students have understood regarding correlation between solar eclipse and mystical activities (such as prohibition to eating, constructing and celebrating marriage during the solar eclipse event). The paradigm of the student in the university was more realistic and logic. As a result, they do not observe a phenomenon only based the cultural belief without rationalizing [21]. This is confirmed by the first statement in Table 1 that 94% of respondents believe about the disconnection between solar eclipse and myth.

| Statement                                                                 | Response (%) |
|---------------------------------------------------------------------------|--------------|
| Total solar eclipse is one of natural phenomenon                           | 94 Believe   |
| Total solar eclipse is related with mistique things                        | 0            |
| Total solar eclipse myth : should not eating, constructing, and marriage   | 6             |
| Should doing religious activity (e.g: going to worship, giving charity, and praying) | 55           |

In addition to myth, we found the correlation between the solar eclipse and religious activity. Most of research subjects give positive recommendation to do worshipping during the total solar eclipse. This is because majority of Indonesian people is a Moslem, in which this has impacts to the people daily activity [22]. Thus, 55% of respondents believe that people should do religious activity during the solar eclipse.
Table 2 shows students' responses to the questionnaire about their opinion on how the Japanese people face the solar eclipse myth. According to this table, 78% of respondents understand that Japanese people face the solar eclipse as a natural process. 37% of students consider the disbelief of Japanese people regarding the Japanese myth during the solar eclipse. And, 40% of respondents consider that Japanese people do not hang up the amulet above the tree during the solar eclipse. In addition, 55% of respondents believe that Japanese people do worshipping during this event.

From the data in Table 2, Indonesian students assume that Japanese people do not believe myths during the solar eclipse, such as (i) closing the wells, and (ii) hanging up the amulet above the tree. This is the respondent's assumption that since Japanese people are able to develop world technologies, the Japanese will have a realistic mindset and always think based on the fact [23]. Regarding the religious activity, Indonesian students consider that Japanese people do religious activity during the solar eclipse. This consideration is because of the mindset of Indonesian students that come from the Islamic culture [24].

| Statement | Response (%) |
|-----------|--------------|
| Believe   | Not believe  | Not know   |
| Total solar eclipse is one of natural phenomenon | 78 | 12 | 10 |
| Total solar eclipse myth: should closing wells during solar eclipse | 31 | 37 | 32 |
| Total solar eclipse myth: should hanging amulet above the tree | 32 | 40 | 28 |
| Should doing religious activity (e.g: going to worship, giving charity, and praying) | 55 | 13 | 32 |

5. Conclusions
Based on the literature review, there are several myths regarding the solar eclipse. However, since there is a boost in science, knowledge, and technology for facing the solar eclipse phenomena, the Indonesian student think that there is no significant difference between Indonesian and Japanese people in facing the solar eclipse. However, the present experimental results are still incomplete. Further study that focused directly to the Japanese people must be done. Therefore, Indonesian students' perspective can be compared correctly.

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